MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The present Summary for 1900 is based essentially upon data received from about 160 regular stations, 28 regular Canadian stations, and a number of voluntary stations whose annual summaries were received in time. A revised chart of total annual precipitation will be published in the Annual Report of the Chief of the Weather Bureau when the data from all voluntary stations have been received. The statistical tables and charts have been prepared under the supervision of Prof. A. J. Henry, Chief of the Division of Meteorological Records. The tables of movements of high and low areas and the summary of flood movements have been prepared by Dr. H. C. Frankenfield, Forecast Official.

Annual summaries were not received from all West Indian stations in time for use in this report.

FORECAST DIVISION.

Prof. E. B. GARRIOTT, in charge.

HIGHS AND LOWS OF 1900.

The high and low data for the year 1900 have been compiled under the general plan in use since 1895, and, with the exception of an increase in the velocity of movement during the winter months, they differed very slightly in their general features from those of the preceding five years.

The tables herewith give the summary for each month of the year 1900, and likewise a summary for the six years from 1895 to 1900, inclusive.

Summary of highs and lows, 1900.

Month.	Highs.							Lows.						
	Mean first observed.		Mean last observed.		Path, average.		Hourly velocity.	Mean first observed.		Mean last observed.		Path, average.		Hourly velocity.
	Lat. N.	Long. W.	Lat. N	Long. W.	Length.	Duration, days.		Lat. N.	Long. W.	Lat. N.	Long. W.	Length.	Duration, days.	
	°	°	°	°	*Miles.*			°	°	°	°	*Miles.*		
Jan.....	46	110	41	72	2,884	3.6	33.2	46	108	46	71	2,266	2 6	37.0
Feb.....	48	108	41	81	2,017	3.0	29.5	43	111	45	76	2,520	3.1	37.3
Mar.....	48	107	40	81	1,790	2.5	30.4	42	108	43	67	2,574	3.3	35.6
Apr.....	42	108	44	92	1,469	2.5	26.9	43	106	47	86	2,217	3.9	23.1
May.....	49	104	39	82	1,514	2.3	28.9	44	104	45	76	1,781	2.4	30.3
June.....	46	113	42	67	2,825	4.3	27.9	46	107	44	72	2,195	4.7	22.1
July.....	38	112	46	75	2,043	3.5	23.9	48	110	47	74	2,087	3.2	29.2
Aug.....	49	100	45	71	1,619	3.2	22.0	46	100	45	71	1,581	2.6	26.0
Sept.....	49	113	46	66	2,712	4.4	25.3	40	104	48	66	2,935	5.4	24.
Oct.....	46	112	42	67	2,790	4.6	27.0	42	106	47	83	1,639	2.8	26.5
Nov.....	47	108	40	73	2,224	3.2	29.8	45	100	43	70	1,781	2.8	27.
Dec.....	46	108	39	73	1,882	3.1	27.3	44	110	43	64	2,799	3.7	34.
Means..	46	108	42	75	2,147	3.4	27.7	44	106	45	73	2,198	3.4	29.

Summary, 1895 to 1900, inclusive.

Year.	Highs.					Lows.				
	Mean first observed.		Mean last observed.		Hourly velocity.	Mean first observed.		Mean last observed.		Hourly velocity.
	Lat. N.	Long. W.	Lat. N.	Long. W.		Lat. N.	Long. W.	Lat. N.	Long. W.	
	°	°	°	°	*Miles*	°	°	°	°	*Miles*
1895.....	47	110	39	80	24	45	107	45	73	26
1896.....	48	111	42	75	24	46	111	46	74	26
1897.....	48	113	38	78	24	46	110	46	71	26
1898.....	46	114	40	72	25	45	111	46	67	26
1899.....	47	114	41	72	24	44	111	46	68	27
1900.....	46	108	42	75	28	44	106	45	73	30
Mean ..	47	112	40	75	25	45	109	46	71	27

H. C. Frankenfield, Forecast Official.

RIVER AND FLOOD SERVICE.

During the year the River and Flood Service has been steadily extended and improved. Eight new special river stations were established and one discontinued. Eleven special rainfall stations were also established and one discontinued. Twelve river gages were installed during the year and many others put in thorough repair. Telegraphic service was extended to many places along the great rivers, and numerous business interests, especially those pertaining to river navigation, now enjoy the benefits of improved service not formerly attainable. The flood service was extended into Texas by the inauguration in August of the Brazos River

Flood Service. Stations of observations are now in operation at Kopperl and Waco, Tex., and others will be added in the near future. The headquarters of this district are at Galveston, Tex.

The great floods of the year were those of February in the Atlantic States, particularly in New England and eastern New York, those of April in the east Gulf States, and the extremely disastrous ones of April and May in Texas. Detailed accounts of these floods can be found in the MONTHLY WEATHER REVIEW for those months.

It is gratifying to add that the high standard of accurate flood forecasting which has been characteristic of the service during previous years was uniformly maintained throughout the present year.

It is true that the reported losses by flood, about $12,000,000, were enormous, but they were such as could not have been avoided, and it is equally true that the value of property saved by the warnings of the Weather Bureau amounted in the aggregate to several millions of dollars, according to the estimates received.

The highest and lowest river stages for the year at 123 selected river stations are given in Table VIII.—*H. C. Frankenfield, Forecast Official.*

MONTHLY CHARACTERISTICS.

January.—The month for the most part was warm and dry. Low temperatures prevailed east of the Rocky Mountains from the 1st to the 5th, but from that date until the 25th a number of lows, first appearing on the weather map over the North Pacific coast and the Southwest, respectively, moved across the country in rapid succession, giving abnormally warm weather in almost all districts. From the 25th until the end of the month several moderate cold waves moved southeastward from Assiniboia carrying the line of freezing temperature to the east Gulf coast and northern Florida on the 30th of the month.

The minimum temperatures of the month were generally recorded from the 1st to the 3d and from the 26th to the 31st. No very severe cold waves occurred.

The rainfall on the California coast was light and scattered after the 8th, and the month as a whole gave less than the normal amount.

The snowfall was light in all districts and quickly disappeared. Less than an inch fell during the entire month over probably two-thirds of the total area of the United States. At the end of the month there was no snow upon the ground east of the Rocky Mountains, except in the Ohio Valley, the Lake region, New England, and a portion of the Middle States.

February.—A wintry month, with much boisterous weather, yet not so severe as the corresponding month a year ago. There were a number of alternating periods of fair and stormy weather, and many marked temperature changes. In New England the heavy rains of the 13th relieved a rather severe and prolonged drought and caused the rivers and small streams to pass to a flood stage within a very short time.

A cold wave of considerable severity moved southeastward from the northeastern Rocky Mountain slope on the 15th, reaching the Florida Peninsula on the morning of the 18th and Cuba and Porto Rico on the 19th and 20th. The minimum temperatures of the month in the South Atlantic and Gulf States were recorded during the progress of the cold wave.

About the average amount of snow fell, except in California and the southwestern part of the Plateau region.

March.—The weather of the current month east of the Rocky Mountains was for the most part cold and disagreeable. In the Gulf States and Florida there was much rain but no abnormally low temperatures. West of the Rocky Mountains it was warmer than usual, with less than the normal amount of rain, except on the coasts of Washington and Oregon. Less than the average amount of snow fell in all districts, except the lower Lake region, the upper Missouri Valley, and northern New England. The number of thunderstorms and severe local storms was remarkably small.

April.—The weather for April, 1900, was abnormal in several respects. The precipitation in the Gulf States, on the Plains south of and including Nebraska, in Colorado, Wyoming, Utah, and Nevada was unusually heavy. Indeed, more rain fell in eastern Colorado in the single month of April than generally falls in twelve months. Much of the precipitation in the mountainous portions of Colorado and Wyoming was in the form of snow, which, however, largely disappeared before the end of the month.

Severe and destructive floods occurred in several of the Gulf States. In the Lake region fine weather prevailed for the most part.

The month was free from destructive storms, although minor tornadoes occurred in several States. Thunderstorms were more numerous than for the corresponding month in 1899.

Interlake navigation opened on the 18th, and boats reached the head of Lake Superior by the 22d, about a week earlier than last season. At the opening of navigation on Lake Superior there was considerable field ice at both ends of the lake. The fields in the western end had disappeared by the 30th, but broken fields still remained in the eastern portions of the lake at the end of the month. Considerable field ice also remained in the eastern portion of Lake Erie at the close of the month.

May.—Atmospheric pressure was considerably lower than usual over practically the whole country. High temperatures prevailed, especially in the upper Missouri Valley, where maximum values from 100° to 105° were registered. The monthly mean temperature over a very large area was much above the seasonal average. The region of abnormally high temperatures extended from the lower Lakes in a continuous line westward to near the Pacific coast and southward to about the thirty-sixth parallel of latitude. In parts of this area the rainfall was scant, and the staple crops suffered accordingly; in other portions the rainfall was sufficient for all needs. General rains fell in California during the first part of the month; during the latter half of the month there were no rains to speak of. Elsewhere on the Pacific coast the rainfall was from 1 to 2 inches above the normal.

The month was rather free from destructive local windstorms and thunderstorms.

June.—The chief characteristics of June weather were (1) an unusual persistence of areas of high pressure in the Lake region, giving northerly winds and cool weather; (2) heavy rains and excessively cloudy weather in the east Gulf States and Tennessee, the western part of Virginia, and the District of Columbia; (3) high temperatures west of the one hundredth meridian; and (4) absence of severe local storms and tornadoes.

July.—No severe storm of a general character appeared in the United States or the West Indies in July, 1900.

During the early part of the month local rains and thunderstorms occurred from the States of the Missouri Valley over the Lake region, New York, and northern New Jersey. On the 13th an extraordinary fall of rain occurred at Galveston, Tex., a depth of 14 inches being recorded in twenty-four hours, of which amount 3 inches fell in sixty minutes. Heavy rain fell in Texas on the 15th, and in the valley of Guadalupe River damage was caused by freshets. On the same day rains broke a prolonged period of drought and high

temperature in the Western and Northwestern States, and during the next few days the conditions which caused these rains extended eastward to the Atlantic coast and ended a heated term of unusual intensity and duration in the Lake region, the Ohio Valley, and Middle Atlantic States. During the 24th needed rain fell over a large area in the Central Western States.

August.—The month was characterized by general stagnation in the lower layers of the atmosphere. East of the Rocky Mountains and north of the Gulf States the weather was abnormally warm, the monthly mean temperature surpassing, in many instances, those registered in tropical countries. The skies were generally free from clouds, especially at night, and rainfall was deficient over large areas east of the Mississippi. In Nebraska, the Dakotas, Minnesota, northern Wisconsin, and portions of Iowa an abundance of rain fell. West of the Rocky Mountains temperature was below the seasonal average, and rainfall was also below normal. Drought prevailed in Arizona, portions of New Mexico, Colorado, and Wyoming.

There was a marked absence of violent local storms and destructive tornadoes, and the highs and lows, while following beaten paths, moved very slowly.

September.—Aside from the West Indian hurricane which partially destroyed Galveston, Tex., on the 8th, an account of which was given in the September REVIEW, there were few broad features of especial significance. Perhaps the most significant was the high pressure that prevailed on the middle and south Atlantic coasts and over Virginia, West Virginia, and the Ohio Valley. The weather east of the Rocky Mountains, at least, if not over the entire country, is controlled largely by the distribution of pressure over the Atlantic coast districts. When areas of high pressure persist over those districts areas of low pressure which develop in Alberta or over the northeastern Rocky Mountain slope and move southeastward into the Missouri Valley are forced to move thence a little east of north, passing over Minnesota and Lake Superior and thence eastward generally beyond the field of observation. The effect of the pressure distribution in such cases is to give heavy rains in the British Northwest, Minnesota, and the Lake Superior region, and high temperature with scant rains in the Mississippi Valley, the Lake region south of Lake Superior, and generally eastward to the Atlantic. The fall of rain in the South Atlantic States is also markedly deficient, while far to the westward in Oklahoma, Indian Territory, west Texas, and New Mexico the rainfall is abundant. These conditions prevailed, in great measure, during the current month.

The temperature was abnormally high in eastern districts until about the 12th. The rapid movement of the West Indian hurricane from Iowa to the Canadian Maritime Provinces, on the 11–12th, brought a cessation of the high temperatures that had prevailed almost continuously since the early part of August, yet the month, as a whole, will rank as a warm September.

October.—In many respects the weather of the month was typical of summer conditions. The circulation of the air was generally feeble, temperatures were above the seasonal averages, and the rainfall was abundant in the majority of districts. A number of areas of low pressure formed in the Plateau region or moved in from the north Pacific, only to dissipate in the upper Mississippi and Missouri valleys. It was eminently a month of inaction on the part of the lows. Two areas of high pressure of marked character moved across the country. The first appeared over the northern Plateau region on the morning of the 6th, moved to the middle Rocky Mountain region by the morning of the 7th and to the Mississippi Valley by the morning of the 8th. The second appeared north of Montana on the morning of the 15th, moved to the upper Mississippi Valley by the morning of the 16th and to the New England coast during the next twenty-four hours. This extremely rapid movement was doubtless due in part to the sudden development of an area of low pressure over eastern New England on the 16th.

The distinguishing characteristics of the month were (1) the sluggishness of the lows; (2) the persistence of areas of high pressure over New England and the Middle Atlantic States; (3) the high temperatures east of the Rocky Mountains and the prevalence of summer weather types.

November.—The weather of November, 1900, was rather stormy, in marked contrast to that of October, 1900. The area of high pressure over the eastern seaboard, which has been so marked a feature in the pressure distribution of the last four months, gave way early in the month and areas of high pressure began again to move in a southeasterly direction.

The temperature was generally above normal, except in the upper Mississippi Valley and in the extreme Northwest, where the average daily negative departure was from 3° to 6°. Heavy snows occurred in the northern Rocky Mountain districts during the 20th and 21st, but the snowfall elsewhere was comparatively light.

A series of tornadoes occurred in southeastern Arkansas, northern Mississippi, and western and middle Tennessee on the 20th, a special report of which appeared in the November REVIEW.

The distinguishing characteristics of the month were (1) the breaking up of the area of high pressure over the eastern seaboard, (2) a movement of the highs southeastward, and (3) the occurrence of severe tornadoes in the middle Mississippi Valley.

December.—The month of December, 1900, was not marked by any severe cold waves or by unusually stormy weather. Mean pressure was in excess of the normal over the central Rocky Mountain and Plateau regions, and also in eastern Tennessee, Georgia, the Carolinas, and Virginia. There were no marked cold waves in the eastern part of the country. West of the Mississippi and north of the thirty-fifth parallel temperature was generally in excess of the normal for the season. Over this same region precipitation was markedly deficient, except on the immediate coast of Washington, where there was an excess of 3 to 5 inches. The month as a whole was drier than usual, except along the immediate Gulf coast and from southern Alabama northeastward to the Carolinas. The chief characteristics were, therefore, (1) high pressure over the central Rocky Mountain and Plateau regions, (2) drought on the Pacific coast south of Washington and a general deficiency of rainfall over the major portion of the country east of the Rocky Mountains, (3) high temperatures and a marked deficiency in snowfall throughout the entire Rocky Mountain and Plateau regions.

GENERAL CLIMATIC CONDITIONS.

By Prof. ALFRED J. HENRY, Chief of Division of Meteorological Records.

ATMOSPHERIC PRESSURE.

The numerical values of annual mean pressures for 1900 are given in Tables I and II. The method of reduction to sea level in use during the year was the same as in former years, with the exception that an appropriate correction for variations in the force of gravity with latitude has been applied

since January 1, 1899. In other respects the annual mean values are comparable with those of the preceding and other years in which Professor Hazen's method of reduction was used.

In addition to the table of reduced pressures, referred to in the preceding paragraph, a second table has been formed (Table III), in conformity with the custom of previous years, by reducing the actual pressures to sea level and standard gravity in accordance with the tables and methods of the International Meteorological Committee, as explained in the MONTHLY WEATHER REVIEW for 1895, Volume XXIII, pages 492–494. The reduced pressures so obtained appear in Table III and on Chart I. The data in the last column of Table III are the pressures at 10,000 feet above sea level, obtained by assuming a uniform decrement of temperature at the rate of 2° F. per 1,000 feet (0.37° C. per 100 meters), as in former annual summaries; the resulting isobars are shown on Chart II.

The distribution of mean pressure at sea level for 1900 is shown by the isobars on Chart I. The configuration of the isobars for 1900 differs very slightly from that of the previous year.

In the middle Mississippi Valley, lower Lake region, and thence eastward to the Atlantic coast pressure was above the normal, as in 1899. Along the Gulf coast and generally west of the Mississippi River pressure was below the normal as much as .04 to .05 inch in some places. In general, pressure was slightly lower in 1900 than in the preceding year.

TEMPERATURE.

The year as a whole was characterized by a number of periods of high temperature, the most notable one being that of midsummer in the Lake region, the Mississippi and Ohio valleys, and the eastern seaboard, not including New England and Florida. It is a rather remarkable fact that in all parts of the country, save in the extreme southwestern part of the Florida Peninsula, mean annual temperature was above the normal by amounts varying from a fraction of a degree on the Gulf coast to as many as 4° in the Dakotas. Maximum temperatures of 110° and over were recorded in eastern Montana and northern South Dakota. Maximum temperatures of 100° were recorded in eastern Pennslyvania, Maryland, the District of Columbia, and generally in the Piedmont Plateau. Maximum temperatures of 100° and over were also recorded in the lower Ohio Valley, the Gulf States, southern New Mexico, Arizona, southern California, northern Oregon, southern Idaho, southeastern Washington, and eastern Wyoming. The highest temperature registered at any Weather Bureau station was 112°. Minimum temperatures ranged from 38° below zero in northern Montana to 51° above zero at Key West, Fla., and 29° above at Corpus Christi, Tex. The line of zero temperature did not extend as far south as in the winter of 1898–99 by at least 200 miles.

PRECIPITATION.

The distribution of total annual precipitation is shown on Chart IV, the district departures by Table B. The year as a whole was one of abundant rainfall in the middle Mississippi Valley, eastern South Dakota, central and western Texas, the eastern Gulf States, and Maine. The rainfall was markedly deficient in southern New England, Pennsylvania, along the south Atlantic coast, in the Ohio and central Mississippi valleys, including western Tennessee and northern Arkansas.

The snowfall of the year was rather below the average and not well distributed.

THUNDERSTORMS.

The frequency of thunderstorm days in the different months and in the several States and Territories is shown approximately by the figures of Tables V and VI. The first-named table has been prepared from reports of both regular and voluntary observers with a view of showing the number of thunderstorm days recorded each month in the immediate neighborhood of the respective stations. The second table shows the number of days on which thunderstorms were recorded in the State or Territory as a whole. In preparing the last-named table reports from all stations whatsoever were used. The number of thunderstorm days for a given State, as shown in Table VI, depends largely upon the size of the State and the number and distribution of observing stations. In the District of Columbia, for example, with but one station, the number of thunderstorm days was 32, while for the adjacent State of Maryland, with an average of 58 stations, thunderstorms were observed on 120 days. In Virginia, with about 54 stations, the number of thunderstorm days was 123. The number of thunderstorms observed at a single station bears a fairly definite relation to the number that would be observed were it possible to greatly enlarge

TABLE A.—*Average monthly and annual departures of temperatures from the normal during* 1900.

Districts.	Number of stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
New England	8	+ 2.1	− 0.2	− 1.6	+ 2.0	− 1.2	+ 0.8	+ 1.4	+ 2.0	+ 2.3	+ 4.7	+ 2.6	− 0.2	+ 1.3
Middle Atlantic	12	+ 2.2	− 1.8	− 2.2	+ 1.4	+ 0.8	+ 0.6	+ 2.5	+ 5.0	+ 4.8	+ 5.6	+ 4.3	+ 0.1	+ 2.0
South Atlantic	10	− 0.2	− 4.0	− 1.0	+ 0.6	+ 0.2	− 0.5	+ 1.3	+ 4.4	+ 3.8	+ 5.0	+ 3.0	− 0.8	+ 1.0
Florida Peninsula	7	− 2.2	− 3.0	− 1.5	0.0	+ 0.1	+ 0.1	+ 0.5	+ 1.7	+ 2.1	+ 3.6	+ 0.5	+ 0.3	+ 0.2
East Gulf	7	− 1.0	− 5.1	− 1.4	− 0.4	+ 0.8	− 1.1	− 0.4	+ 2.2	+ 4.0	+ 4.8	+ 2.5	− 0.3	+ 0.4
West Gulf	7	+ 3.4	− 3.1	+ 0.1	− 0.9	+ 0.6	+ 1.2	− 0.8	+ 1.2	+ 5.1	+ 3.9	+ 3.2	0.0	+ 1.1
Ohio Valley and Tennessee	11	+ 2.8	− 5.2	− 2.7	+ 0.4	+ 1.8	− 0.5	+ 0.9	+ 5.4	+ 5.7	+ 8.1	+ 2.0	+ 0.1	+ 1.6
Lower Lakes	8	+ 3.2	− 3.2	− 5.6	+ 1.9	+ 1.7	− 0.5	+ 0.6	+ 5.0	+ 3.6	+ 8.9	+ 2.2	0.0	+ 1.5
Upper Lakes	10	+ 6.6	− 4.3	− 3.4	+ 4.4	+ 3.4	− 0.7	− 0.8	+ 6.1	+ 2.9	+ 9.8	+ 0.2	+ 1.4	+ 2.1
North Dakota	8	+14.6	− 4.0	+ 0.8	+ 8.5	+ 6.4	+ 2.7	+ 0.1	+ 4.6	− 1.6	+ 5.4	− 3.6	+ 5.1	+ 3.2
Upper Mississippi Valley	11	+ 8.2	− 6.5	− 2.5	+ 3.1	+ 3.3	− 0.1	− 0.4	+ 7.0	+ 2.6	+ 8.8	+ 0.6	+ 1.5	+ 2.1
Missouri Valley	11	+10.1	− 4.3	+ 0.6	+ 3.7	+ 5.0	+ 1.5	− 0.2	+ 5.5	+ 1.2	+ 6.9	+ 0.2	+ 3.6	+ 2.9
Northern Slope	7	+13.5	− 1.3	+ 3.7	+ 2.9	+ 5.7	+ 5.9	− 0.4	+ 1.2	− 1.0	+ 3.3	− 0.5	+ 6.7	+ 3.3
Middle Slope	6	+ 8.8	− 2.0	+ 2.0	− 0.8	+ 2.2	+ 2.6	− 0.1	+ 3.6	+ 1.3	+ 4.8	+ 1.9	+ 1.9	+ 2.1
Southern Slope	6	+ 6.4	− 1.5	+ 1.0	− 2.3	− 1.9	+ 0.9	− 2.0	+ 1.0	+ 2.7	+ 2.6	+ 2.5	+ 1.0	+ 0.9
Southern Plateau	15	+ 6.7	+ 2.1	+ 4.7	− 4.1	+ 1.6	+ 0.7	+ 0.3	− 2.7	− 3.4	− 0.1	+ 2.9	+ 1.8	+ 0.9
Middle Plateau	9	+ 8.1	+ 4.3	+ 6.4	− 1.7	+ 2.2	+ 5.3	+ 0.7	− 3.1	− 3.7	− 0.5	+ 3.8	+ 3.6	+ 2.1
Northern Plateau	10	+10.0	+ 2.0	+ 6.6	− 1.4	+ 0.8	+ 5.2	− 0.2	− 4.9	− 1.4	− 0.5	− 1.2	+ 4.5	+ 1.6
North Pacific	7	+ 4.5	+ 3.4	+ 3.9	+ 1.1	− 0.4	+ 1.4	+ 0.3	− 1.7	− 0.3	− 0.9	− 0.7	+ 3.0	+ 1.1
Middle Pacific	5	+ 2.7	+ 2.1	+ 2.4	− 0.7	+ 0.8	+ 0.9	+ 0.5	− 0.9	0.0	− 0.8	+ 1.3	+ 0.4	+ 0.7
South Pacific	4	+ 4.0	+ 2.5	+ 3.8	− 2.2	+ 1.4	+ 1.7	+ 0.6	− 2.8	− 1.7	− 0.3	+ 4.6	+ 2.7	+ 1.2

TABLE B.—*Monthly and annual departures of precipitation from the normal during* 1900.

Districts.	Number of stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
New England	8	+0.4	+2.2	+0.3	−0.8	0.0	−1.2	−1.3	−1.6	−0.5	0.0	+0.3	−1.4	−3.9
Middle Atlantic	12	−1.0	+0.6	−0.3	−1.0	−0.9	+0.3	−1.2	−1.9	−1.0	−1.0	−0.1	−0.9	−7.8
South Atlantic	10	−0.9	+0.6	0.0	+1.6	−1.0	+1.3	−2.9	−4.2	−2.8	0.0	+0.9	+1.0	−6.6
Florida Peninsula	7	+0.5	+0.7	+3.7	+1.6	+0.3	+2.9	−1.6	−2.8	−1.4	+1.2	−1.6	+1.2	+4.7
East Gulf	7	−2.3	+3.0	−0.5	+3.7	−0.7	+7.9	−0.5	−2.9	0.0	+2.1	−0.6	+1.1	+9.5
West Gulf	7	−0.1	−0.9	+0.7	+1.2	−0.4	+0.1	+2.7	+0.7	−1.2	+1.0	−1.5	−1.0	+1.4
Ohio Valley and Tennessee	11	−1.6	−0.4	−1.7	−1.4	−0.8	+0.8	−0.8	−0.7	−1.0	0.0	+1.7	−1.6	−7.6
Lower Lakes	8	−0.1	+1.2	+0.4	−0.7	−1.6	−0.9	+1.6	−0.3	−1.0	−0.6	+0.9	−1.4	−2.6
Upper Lakes	10	−0.7	+0.4	−0.8	−0.6	−1.1	−1.7	+1.4	+0.9	+0.7	−0.8	0.0	−1.4	−3.7
North Dakota	8	−0.5	−0.2	+0.2	−1.2	−1.6	−2.4	−0.5	+3.2	+2.5	+0.6	+0.1	−0.3	−0.1
Upper Mississippi Valley	11	−0.6	+0.6	−0.5	−1.0	−0.5	−1.8	+1.2	+0.7	+1.5	+1.7	−0.4	−1.4	−0.3
Missouri Valley	11	−0.6	+0.3	−0.4	+0.3	−2.1	−0.8	+2.6	+0.9	+1.6	+1.3	−0.5	−0.8	+1.5
Northern Slope	7	−0.6	+0.2	−0.2	+2.2	−1.4	−1.6	−0.4	+0.2	+0.8	−0.3	−0.2	−0.2	−1.6
Middle Slope	6	−0.6	+0.2	−0.8	+3.1	−0.8	−1.2	0.0	−1.2	+2.0	+0.8	−0.3	−0.4	+0.7
Southern Slope	6	−0.6	−0.4	−0.3	+2.6	+0.3	−1.4	+2.0	−0.8	+5.4	+1.0	−0.1	−1.0	+6.7
Southern Plateau	15	−0.8	−0.7	−0.7	+1.2	0.0	−0.2	−0.7	−1.0	+0.8	−0.2	+0.9	−1.3	−2.7
Middle Plateau	9	−0.8	−0.3	−1.1	+0.7	−0.3	−0.3	−0.4	−0.4	+0.1	+0.1	+0.4	−1.2	−3.5
Northern Plateau	10	−1.0	−0.1	−0.6	+0.5	+0.6	−0.6	−0.3	−0.4	+0.1	+1.1	−0.4	−1.5	−2.6
North Pacific	7	−1.6	−0.7	+0.8	−2.2	+1.4	+2.0	−0.3	+0.3	−1.4	+1.9	−1.8	+1.5	−1.5
Middle Pacific	5	−0.6	−2.0	−1.7	−0.1	+0.1	+0.1	−0.1	0.0	−0.3	+1.6	+1.8	−3.2	−5.0
South Pacific	4	−1.4	−2.6	−1.0	−0.4	+1.3	−0.1	0.0	0.0	−0.1	0.0	+3.8	−2.9	−5.3

TABLE C.—*Monthly and annual departures of relative humidity from the normal,* 1900.

Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October	November.	December.	Annual.
New England	0	− 1	− 6	− 1	− 4	− 5	− 2	− 2	− 1	+ 7	+ 1	+ 1	−1.1
Middle Atlantic	0	− 1	− 2	− 4	− 7	− 1	− 2	− 3	− 1	+ 9	− 2	+ 1	−1.1
South Atlantic	− 3	− 4	+ 1	0	− 3	+ 3	− 2	− 6	− 3	+ 7	− 1	− 1	−1.0
Florida Peninsula	0	− 1	+ 2	+ 3	+ 3	− 1	0	− 2	0	+ 2	− 4	+ 1	+0.2
East Gulf	− 6	− 5	− 4	+ 1	− 4	+ 8	+ 2	− 3	− 2	+11	− 1	− 2	−0.4
West Gulf	+ 2	− 3	+ 3	+ 4	+ 4	+ 5	+ 8	+ 5	+ 6	+ 8	+ 2	+ 3	+3.9
Ohio Valley and Tennessee	− 1	+ 2	+ 1	0	− 6	+ 6	+ 2	0	− 2	+ 6	0	+ 1	+0.8
Lower Lakes	− 2	− 2	0	− 1	− 2	− 3	+ 3	+ 4	− 2	+ 3	+ 2	− 2	−0.2
Upper Lakes	+ 2	+ 3	+ 2	− 2	− 4	− 3	+ 4	+ 6	+ 6	+ 7	+ 3	+ 3	+2.2
North Dakota	− 2	− 3	+ 2	− 8	− 9	−11	− 9	+ 8	+14	+13	+ 2	+ 2	−0.1
Upper Mississippi Valley	+ 2	+ 3	+ 5	+ 1	0	− 3	+ 4	+ 3	+ 4	+ 8	+ 2	+ 4	+2.8
Missouri Valley	− 4	− 3	− 4	− 2	− 3	− 6	0	+ 1	+ 6	+ 7	+ 1	− 1	−0.7
Northern Slope	− 1	+ 5	− 3	+10	0	− 3	0	+ 4	+12	+ 6	+ 3	+ 2	+2.9
Middle Slope	+ 1	0	+ 1	+14	+ 6	+ 2	− 1	− 5	+ 8	+ 6	+ 1	− 2	+2.6
Southern Slope	+ 6	−11	+ 4	+13	+10	− 2	+ 6	0	+10	+10	+ 4	−13	+3.1
Southern Plateau	− 8	−15	− 5	+ 8	+ 1	− 1	− 8	−17	− 8	− 8	− 6	− 9	−6.3
Middle Plateau	− 1	−10	−15	+ 9	− 8	− 9	−10	− 5	+ 3	+ 2	+ 5	− 4	−3.6
Northern Plateau	− 1	− 4	− 5	+ 8	+ 1	− 4	− 6	+ 3	+ 4	+ 4	+ 7	+ 2	+0.8
North Pacific	0	− 2	− 2	− 5	− 2	− 3	− 6	− 3	− 3	− 3	− 1	− 1	−2.6
Middle Pacific	+ 6	0	− 1	− 4	− 5	+ 2	−10	− 5	− 4	+ 2	+ 6	− 4	−1.4
South Pacific	+ 5	− 2	− 3	+ 1	+ 1	+ 2	0	+ 4	− 5	0	− 3	− 8	−0.7

TABLE D.—*Monthly and annual departures of average cloudiness from the normal,* 1900.

Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
New England	+0.1	+0.5	−0.8	0.0	0.0	−0.4	−0.2	−0.3	0.0	+0.9	+1.4	−0.1	+0.1
Middle Atlantic	−0.1	+0.3	−0.1	−0.3	−0.4	+0.5	−0.5	−1.1	−0.3	+0.9	+0.9	+0.1	0.0
South Atlantic	−0.8	+0.5	+0.5	+0.4	−0.8	+0.9	−0.6	−2.0	−1.7	+1.2	0.0	+0.4	0.0
Florida Peninsula	+1.0	+0.2	+1.3	+0.7	+1.5	0.0	+0.1	+0.1	−0.4	+1.0	−0.3	+1.7	+0.6
East Gulf	−0.6	+0.1	+0.8	+0.6	−0.4	+1.8	+0.8	−0.5	−1.3	+2.0	0.0	+0.4	+0.3
West Gulf	+0.2	−0.4	+0.6	+0.6	+0.1	−0.2	+1.5	+0.2	+0.3	+0.9	−0.2	−0.4	+0.3
Ohio Valley and Tennessee	−0.5	+0.7	+0.2	−0.4	−0.4	+1.0	−0.2	−0.8	0.0	0.0	0.0	−0.2	0.0
Lower Lakes	+0.2	+0.4	0.0	−0.5	+0.3	−0.2	+0.5	−0.1	+0.2	−0.9	+0.7	+0.4	+0.1
Upper Lakes	+0.4	−0.1	+0.3	−0.4	+0.4	−0.7	+0.6	+0.7	+0.6	−0.5	+0.7	+0.5	+0.2
North Dakota	−0.2	+0.4	+0.1	−1.7	−1.6	−1.5	−0.7	0.0	+1.2	−0.5	−0.3	−0.1	−0.4
Upper Mississippi Valley	+0.1	+0.6	0.0	−0.4	−0.3	−0.3	−0.2	−0.3	+0.6	+0.1	+0.3	−0.1	0.0
Missouri Valley	−0.4	+0.4	−0.7	+0.6	−0.8	−0.4	−0.5	−0.2	+0.7	−0.2	+0.1	+0.1	−0.1
Northern Slope	−0.2	+1.2	−0.3	+0.2	−0.8	−1.0	−0.3	+0.7	+0.6	+0.1	+0.3	+0.2	+0.1
Middle Slope	0.0	+0.3	+0.1	+1.6	0.0	+0.1	−0.4	−0.2	+1.5	+1.0	+0.6	+0.1	+0.4
Southern Slope	0.0	−0.8	+0.8	+0.6	−0.1	−1.6	+0.4	−1.6	+0.9	+1.2	−0.4	−1.8	−0.2
Southern Plateau	0.0	−0.7	+0.4	+0.9	+0.1	+0.4	−1.3	−1.2	+0.7	+0.6	+0.3	−1.4	−0.1
Middle Plateau	−0.2	+0.7	−1.2	+2.2	−0.1	+0.3	+0.2	+0.6	+0.9	+1.2	+1.2	−0.7	+0.4
Northern Plateau	−0.9	+0.4	−1.1	0.0	−0.1	−1.0	−0.6	+1.5	+0.5	+0.8	+0.6	+0.5	0.0
North Pacific	−0.2	+0.6	−0.2	−0.9	+0.8	−0.1	−0.4	+1.4	+0.3	+1.1	−0.3	+0.4	+0.2
Middle Pacific	+1.6	+0.2	+0.4	−0.3	−0.3	+1.2	−0.4	+0.5	+0.6	+1.3	+2.2	+0.3	+0.5
South Pacific	+1.4	−1.2	−0.3	0.0	−1.1	+0.3	+0.1	+0.7	−0.3	+0.5	+0.3	−0.6	0.0

the field of observation. The ratio for Washington, D. C., is about 4.0, that is to say, in order to ascertain the number of thunderstorm days for a region equal in area to the adjoining States of Maryland and Virginia we have only to multiply the number observed at Washington by the constant 4.0.

Thunderstorms were reported on a greater number of days in 1900 than in the preceding year. The increase was most marked on the Pacific coast, in Texas, Arkansas, Louisiana, Oklahoma, Indian Territory, and the eastern foothills of the Rocky Mountains. The States and Territories in which the number of thunderstorm days reported in 1900 was less than in the preceding year are Arizona, District of Columbia, Maryland, Virginia, Ohio, Tennessee, West Virginia, Indiana, and South Dakota. The number of voluntary stations reporting thunderstorms in each of the several States is substantially the same as in the preceding year.

SPECIAL CONTRIBUTIONS.

FRESHETS IN JAMES RIVER, VA.

By E. A. EVANS, Section Director, reprinted from Annual Summary.

The accompanying tables, showing flood heights and rate of flood travel in the James River, have been given in this report in pursuance of a plan which has for its end the collection and preservation in a permanent and accessible form of all matter relating to the floods of this stream. In previous annual reports some space has been devoted to an elementary consideration of the same subject, and the data now given are only to be considered as supplementary thereto.

Freshet record of James River, May 4, 1893, to October 2, 1896.

Date.	Highest stages of river (feet and tenths) during freshets.								
	Clifton Forge.	Eagle Mountain.	Buchanan.	Balcony Falls.	Lynchburg.	Scottsville.	Columbia.	9-Mile Locks.	Richmond at Rocketts.
1893.									
Time...	10.30 a.m.	11 a.m.	11 a.m.	5.30 p.m.	6.30 p.m.	12 midn't	1 a.m.	3 p.m.	4 p.m.
May 4....	10.5	12.3	15.0	13.3	13.9	17.8	.....	.....	.....
May 5....	.....	.....	.....	.....	.....	.....	26.9	10.1	16.9
Time...	4 p.m.	4 p.m.	8 a.m.	4 p.m.	6 p.m.	6 a.m.	7 a.m.	1 a.m.	2 a.m.
Sept. 12..	2.0	3.9	.....	.....	.....	.....	.....	.....	.....
Sept. 13..	.....	.....	7.7	7.0	10.8	.....	.....	.....	.....
Sept. 14..	.....	.....	.....	.....	.....	14.9	24.0	.....	.....
Sept. 15..	.....	.....	.....	.....	.....	.....	.....	8.1	14.6
1895.									
Time...	.....	.....	.....	.....	8 p.m.	8 a.m.	4 p.m.	2 p.m.	5 p.m.
Jan. 10...	.....	.....	.....	.....	10.5	.....	.....	.....	.....
Jan. 11...	.....	.....	.....	.....	.....	18.4	28.3	.....	.....
Jan. 12...	.....	.....	.....	.....	.....	.....	.....	10.7	18.2
Time...	8 p.m.	.....	12 midn't	12 midn't	2 a.m.	7 p.m.	8 a.m.	6 p.m.	8 p.m.
Apr. 8....	15.9	.....	19.0	11.0	.....	.....	.....	.....	.....
Apr. 9....	.....	.....	.....	.....	15.2	19.2	.....	.....	.....
Apr. 10...	.....	.....	.....	.....	.....	.....	25.5	9.4	16.4
Time...	8 a.m.	4 p.m.	4 p.m.	.....	8 p.m.	4 p.m.	4 p.m.	2 p.m.	5 p.m.
July 9....	9.0	9.0	12.1	.....	10.2	.....	.....	.....	.....
July 10...	.....	.....	.....	.....	.....	14.2	19.3	.....	.....
July 11...	.....	.....	.....	.....	.....	.....	.....	7.4	12.5
1896.									
Time...	.....	.....	.....	.....	10 p.m.	.....	10 a.m.	1 a.m.	4 a.m.
Sept. 30..	.....	.....	.....	.....	15.7	.....	.....	.....	.....
Oct. 1....	.....	.....	.....	.....	.....	.....	28.5	.....	.....
Oct. 2....	.....	.....	.....	.....	.....	.....	.....	10.3	16.7

NOTE.—None of the heights given in this table are referred to the Weather Bureau river gages. Data given have not been verified.

It is unfortunate that the importance of preserving detailed information of each flood was not recognized many years before it appears to have been, and that when recognized a more determined effort was not made to keep it complete from year to year. Work of this nature is necessarily largely voluntary work, and hence the thoroughness of its performance depends upon the amount of personal interest each cooperating individual has. It is, doubtless, owing to the importance of the work being not understood that the record at a number of points is of so fragmentary a nature as to be well nigh useless for the purposes of reference or study. But nevertheless it is given, not only to preserve it in whatever measure of completeness it does possess, but also in the hope that at some future day it may be added to by some more successful person.

Comparison of Freshets.

Place.	Date.	Time.	Height, in feet.	Excess above, May 5. Columbia.	Excess above, May 5. Richmond.	Interval, Columbia to Richmond.
				Feet.	*Feet.*	*Hrs.*
Columbia	May 5, 1893	1 a. m.	26.9	0.00	.....	15
Richmond	do	4 p. m.	16.9	.....	0.00	.....
Columbia	Sept. 14, 1893.	7 a. m.	24.0	−2.90	.....	19
Richmond	Sept. 15, 1893.	2 a. m.	14.6	.....	−2.27	.....
Columbia	Jan. 11, 1895..	4 p. m.	28.3	+1.40	.....	25
Richmond	Jan. 12, 1895..	5 p. m.	18.2	.....	+1.29	.....
Columbia	April 10, 1895	8 a. m.	25.5	−1.40	.....	12
Richmond	do	8 p. m.	16.4	.....	−0.52	.....
Columbia	July 10, 1896..	4 p. m.	19.3	−7.60	.....	25
Richmond	July 11, 1896..	5 p. m.	12.5	.....	−4.38	.....
Columbia	Oct. 1, 1896...	10 a. m.	28.5	+1.60	.....	18
Richmond	Oct. 2. 1896...	4 a. m.	16.7	.....	−0.30	.....

Place.	Date.	Time.	Height, in feet.	Excess above, May 4, Lynchburg.	Excess above, May 5, Richmond.	Interval, Lynchburg to Richmond.
Lynchburg	May 4, 1893...	6:30 p. m..	13.9	0.00	.....	.....
Richmond	May 5, 1893...	4:00 p. m..	16.9	.....	0.00	21.5
Lynchburg	Sept. 13, 1893.	6:00 p. m..	10.8	−3.10	.....	32
Richmond	Sept. 15, 1893.	2:00 a. m..	14.6	.....	−2.27	.....
Lynchburg	Jan. 10, 1895..	8:00 p. m..	10.5	−3.40	.....	45
Richmond	Jan. 12, 1895..	5:00 p. m..	18.2	.....	+1.29	.....
Lynchburg	April 9, 1895..	2:00 a. m..	15.2	+1.30	.....	42
Richmond	April 10, 1895.	8:00 p. m..	16.4	.....	−0.52	.....
Lynchburg	July 9, 1896.	8:00 p. m..	10.2	−3.70	.....	45
Richmond	July 11, 1896..	5:00 p. m..	12.5	.....	−4.38	.....
Lynchburg	Sept. 30, 1896	10:00 p. m.	15.7	+1.80	.....	30
Richmond	Oct. 2, 1896...	4:00 a. m..	16.7	.....	−0.20	.....

Height given at Richmond is above mean low tide, which is 10.179 feet above the United States Engineer datum. Height given at all other points is above ordinary low water known or assumed.

Rise at Richmond is 59 to 65 per cent of that at Columbia. Difference in time of maximum rise at Columbia and Richmond is twelve to twenty-five hours.

Rise at Richmond is 65 to 73 per cent greater than at Lynchburg. Difference in time of maximum rise at Lynchburg and Richmond is twenty-one and a half to forty-five hours.

The Weather Bureau, by the thoroughness of its methods, has solved many fluvial problems, and has perfected a flood warning system that is of immense value to the people in times of high water. A notable instance of this may be found in the great flood occurring in the lower Mississippi Valley in the spring of 1897, when all forecasts of expected flood heights were verified on the days named with astonishing accuracy. Truly, if the guarantee for the future lies in the progress of the past, we shall at no distant day find in this a work of noble and impressive proportions.

In the Richmond district the Chief of the Weather Bureau has authorized the establishment of two additional special rainfall reporting stations during the year, viz, Buena Vista and Cliftonforge.

Table of flood rises in James River from September, 1870, to January, 1892.

Date.	Lexington. (195.5 miles.)	Cliftonforge. (230.2 miles.)	Balcony Falls. (174.4 miles.)	Lynchburg. (146.6 miles.)	Joshua Falls. (135.9 miles.)	Allens Creek. (120.3 miles.)	Grenway. (144.0 miles.)	Midway Mills. (101.9 miles.)	Howardsville. (91.0 miles.)	Scottsville. (79.3 miles.)
September, 1870	.....	.....	.....	14.4	.....	.....	31.0	28.4	23.5	28.8
November, 1877	.....	.....	.....	11.8	.....	.....	.....	.....	23.6	26.3
March 10, 1874	.....	.....	.....	9.9	.....	9.9	.....	.....	.....	14.0
March 27, 1884	.....	.....	10.0	12.2	.....	.....	.....	.....	.....	17.8
October 30, 1885	8.0	8.7	12.2	.....	.....	.....	.....	.....	.....	.....
October 31, 1885	.....	.....	.....	13.0	.....	.....	.....	.....	.....	16.3
November 1, 1885	.....	.....	10.2	.....	.....	.....	.....	.....	.....	.....
January 4, 1886	.....	11.0	.....	14.2	.....	.....	.....	.....	.....	.....
January 5, 1886	12.2	.....	11.2	.....	.....	.....	.....	.....	.....	17.0
April, 1886	.....	.....	.....	10.8	.....	.....	21.4	21.0	21.6	22.5
July, 1886	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August, 1889	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April, 1891	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
January, 1892	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September 30, 1870	.....	.....	25.0†	26.0†	.....	.....	.....	.....	.....	.....
November 27, 1870	.....	.....	24.0†	25.0†	.....	.....	.....	.....	.....	.....

Table of flood rises in the James River, etc.—Continued.

Date.	Middleton Mills. (70.1 miles.)	Bremo Bluff. (66.4 miles.)	Columbia. (56.5 miles.)	Irwin. (33.4 miles.)	Maidens Adventure. (30.3 miles.)	Lee. (24.4 miles.)	Vinita. (15.3 miles.)	Nine Mile Locks.	Three Mile Locks.	Richmond.
September, 1870	23.2	30.7	36.6	.....	.....	.....	.....	.....	.....	27.0*
November, 1877	24.2	28.2	36.1	31.4	21.0	.....	.....	15.8	8.1	28.6*
March 10, 1874	.....	.....	20.0	.....	.....	.....	.....	.....	.....	13.7
March 27, 1884	.....	.....	24.0	.....	.....	.....	.....	.....	.....	15.7
October, 30, 1885	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October 31, 1885	.....	.....	30.6	.....	.....	.....	.....	.....	.....	15.9
November 1, 1885	.....	.....	30.6	.....	.....	.....	.....	.....	.....	14 2
January 4, 1886	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
January 5, 1886	.....	.....	24.0	.....	.....	.....	.....	.....	.....	14.8
April, 1886	19.9	24.0	29.8	24.4	19.9	19.7	21.7	12.1	7.1	24.3
July, 1886	.....	.....	23.8	.....	.....	.....	.....	.....	.....	17.2
August, 1889	.....	.....	29.5	.....	.....	.....	.....	.....	.....	22.5
April, 1891	.....	.....	20.5	.....	.....	.....	.....	.....	.....	14.4
January 1892	.....	.....	20.3	.....	.....	.....	.....	.....	.....	13.5
September 30, 1870	.....	.....	39.0†	.....	.....	.....	.....	.....	.....	24.0†
November 27, 1870	.....	.....	37.5†	.....	.....	.....	.....	.....	.....	25.5†

*From records of James River Improvement Office through C. P. E. Burgwyn, Other information through T. C. Eggleston and A. D. Frethan, from records of R. and A. R. R. Co.

†From records of R. and A. R. R. Co., Col. W. R. Munford, custodian.

The distances in miles given in headings are above Richmond.

Readings given are above mean low tide level at Richmond, and ordinary stages of the river at all other points given. The exact date on which the maximum rise occurred at each place is not recorded.

TABLE I.—*Annual climatological summary, Weather Bureau Stations*, 1900.

Districts and stations.	Elevation of barometer above sea level.	Pressure in inches.†			Temperature of the air, in degrees Fahrenheit.							Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation.			Winds.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall, in inches.‡
		Mean actual, 8 a. m. + 8 p. m. ÷ 2.	Mean reduced.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Mean maximum.	Minimum.	Mean minimum.	Annual range.			Total, in inches.	Departure from normal.	Days with .01, or more.	Total movement, miles.	Prevailing direction.	Max. velocity. Miles, per hour.	Max. velocity. Direction.					
New England.					46.6	+1.3							76	39.64	— 3.91								5.5	
Eastport, Me	76	29.88	29.97	+.01	42.5	+1.0	89	50	−11	36	100	36	81	47.35	+ 2.17	145	96,791	w.	66	e.	100	117	148	6.2	80.0
Portland, Me	108	29.86	29.96	−.02	46.2	+0.5	94	54	− 8	38	102	36	71	50.79	+ 8.53	121	68,364	nw.	54	ne.	144	116	105	5.1	77.6
Northfield, Vt	876	29.05	30.01	.00	41.6	+0.4	92	53	−24	30	116	34	77	34.11	− 1.63	156	76,845	s.	48	sw.	60	145	160	6.5	110.6
Boston, Mass	125	29.86	30.00	+.01	50.8	+2.2	97	59	− 4	42	101	41	71	44.05	− 0.91	116	99,335	sw.	60	e.	128	98	139	5.5	25.0
Nantucket, Mass	12	30.00	30.01	−.01	50.4	+1.6	87	56	0	45	87	44	81	31.22	− 9.51	131	106,363	nw.	61	w.	87	117	161	6.4	28.1
Block Island, R. I	26	29.98	30.01	−.01	50.6	+1.5	89	56	− 2	45	87	43	78	37.57	− 6.62	117	152,112	sw.	84	e.	140	129	96	4.7	14.5
Narragansett, R. I	.....	.....	.....	.....	49.8	+1.2	90	58	− 2	42	92	.....	.....	37.24	−10.26	96	.....	w.	.....	.....	215	55	95	.....	16.0
New Haven, Conn	106	29.90	30.01	.00	51.1	+1.7	98	60	− 1	42	99	41	72	34.83	−13.08	111	81,150	n.	48	nw.	198	90	77	3.9	19.5
Middle Atlantic States.					55.4	+2.0							72	35.96	− 7.79									5.2	
Albany, N. Y	97	29.92	30.03	+.02	50.1	+1.9	99	59	− 8	41	107	39	72	30.56	− 7.30	119	68,678	s.	46	e.	108	140	117	5.6	42.5
Binghamton, N. Y	875	.....	.....	.....	48.4	+2.0	96	58	−11	39	107	.....	.....	22.42	−14.36	138	58,283	nw.	42	w.	70	119	176	6.6	24.6
New York, N. Y	314	29.69	30.03	−.01	54.3	+2.6	95	62	4	47	91	43	70	41.78	− 3.02	121	128,011	nw.	76	nw.	133	124	108	5.2	20.1
Harrisburg, Pa	374	.....	.....	.....	54.3	+2.8	100	63	3	46	97	.....	.....	28.94	−15.12	115	63,510	w.	48	w.	114	108	143	5.6	18.4
Philadelphia, Pa	117	29.93	30.05	.00	56.0	+2.6	101	64	6	48	95	44	68	40.91	+ 1.07	119	86,239	nw.	46	sw.	130	100	135	5.5	20.6
Atlantic City, N. J.	52	30.00	30.06	+.03	53.8	+1.9	98	60	7	47	91	46	78	28.13	−14.58	105	99,054	sw.	48	w.	132	151	82	4.8	16.0
Baltimore Md	123	29.92	30.05	.00	57.0	+1.8	100	66	8	49	92	46	72	31.57	−12.38	115	44,743	w.	30	w.	107	137	121	5.6	25.7
Washington, D. C	112	29.94	30.06	.00	56.5	+1.8	101	66	6	47	95	45	70	41.20	− 2.26	112	58,615	nw.	40	nw.	174	79	112	4.6	35.6
Cape Henry, Va	.....	.....	.....	.....	60.1	+1.4	100	68	12	52	88	.....	.....	43.62	− 8.72	115	111,474	sw.	52	nw.	136	134	95	4.9	9.2
Lynchburg, Va	681	29.33	30.05	−.01	58.4	+1.5	100	69	9	48	91	46	70	47.10	+ 4.25	112	34,197	nw.	44	n.	166	126	73	4.4	10.0
Norfolk, Va	91	29.97	30.07	+.02	60.7	+1.7	100	69	13	52	87	51	76	39.34	−12.74	111	82,595	s.	55	se.	177	96	92	4.5	2.6
Richmond, Va	144	.....	.....	.....	59.7	.....	102	70	10	50	92	.....	.....	37.76	.....	107	50,873	s.	36	s.	143	122	100	4.8	14.4
South Atlantic States.					64.5	+1.0							76	46.48	− 6.57									4.7	
Charlotte, N. C	773	29.24	30.06	+.01	60.8	+0.9	99	71	9	51	90	48	69	46.34	− 5.58	115	57,383	ne.	42	w.	158	81	126	5.0	0.9
Hatteras, N. C	11	30.06	30.07	+.03	62.8	+1.4	90	68	19	58	71	56	82	45.65	−20.76	108	120,857	sw.	75	nw.	182	113	70	4.2	1.0
Raleigh, N. C	376	29.68	30.08	+.01	61.3	+2.2	100	71	11	51	89	50	72	47.24	+ 1.15	119	52,171	sw.	38	nw.	177	106	82	4.3	2.4
Wilmington, N. C	78	29.99	30.08	+.03	63.8	+0.8	98	73	16	55	82	55	79	40.08	−14.26	104	71,432	sw.	38	nw.	158	121	86	4.3	0.1
Charleston, S. C	48	30.04	30.09	+.03	66.8	+1.0	99	73	19	60	80	56	75	38.10	−18.64	118	92,193	s.	42	ne.	116	178	71	4.8	0.5
Columbia, S. C	.....	.....	.....	.....	64.3	+0.7	106	75	12	53	94	.....	.....	50.73	+ 3.18	118	.....	ne.	.....	.....	145	107	113	5.2	1.8
Augusta, Ga	180	29.88	30.07	+.03	64.5	+0.6	102	74	13	55	89	53	74	51.22	+ 2.90	120	52,092	nw.	39	sw.	163	100	102	4.6	1.6
Savannah, Ga	65	30.01	30.07	.00	67.2	+0.8	102	76	16	59	86	58	80	45.06	− 6.83	122	65,402	sw.	35	*	147	128	90	4.7	T.
Jacksonville, Fla	43	30.02	30.07	+.03	69.4	+0.4	101	78	18	61	83	60	80	53.85	− 0.27	139	64,285	se.	50	s.	116	140	109	5.2	
Florida Peninsula.					73.9	−0.2							80	52.30	+ 2.52									5.3	
Jupiter, Fla	28	30.00	30.03	.00	74.3	+0.7	98	80	31	69	62	67	81	52.65	− 5.33	143	92,562	se.	48	e.	91	196	78	5.2	
Key West, Fla	22	30.00	30.02	+.02	75.9	−1.2	89	80	51	72	38	68	79	48.81	+10.35	124	88,135	e.	44	nw.	132	162	71	4.9	
Tampa, Fla	34	30.01	30.05	+.01	71.5	−0.1	95	80	27	63	68	62	81	55.45	+ 2.55	131	56,596	ne.	36	s.	85	182	98	5.8	
East Gulf States.					66.0	+0.4							76	66.05	+ 9.48									5.0	
Atlanta, Ga	1,174	28.84	30.07	−.01	61.9	+0.7	98	71	8	53	90	50	72	58.83	+ 8.45	122	87,300	nw.	56	nw.	137	88	140	5.4	T.
Macon, Ga	370	.....	.....	.....	64.0	.....	100	74	10	54	90	.....	.....	49.78	.....	117	52,666	nw.	48	s.	93	208	64	4.5	4.0
Pensacola, Fla	56	.....	.....	.....	68.2	+0.6	97	75	19	62	78	.....	.....	70.82	+13.73	112	83,851	ne.	48	sw.	156	109	100	4.9	T.
Mobile, Ala	57	29.99	30.05	+.01	67.1	+0.4	96	75	19	60	77	59	80	91.18	+28.57	146	63,997	n.	40	*	150	105	110	5.0	T.
Montgomery, Ala	223	29.82	30.05	−.01	65.7	+0.5	99	75	15	56	84	55	75	59.92	+ 7.30	113	55,292	e.	37	n.	153	93	119	5.0	3.5
Meridian, Miss	375	.....	.....	.....	63.9	−0.1	95	74	14	54	81	.....	.....	71.92	+14.93	123	46,801	sw.	34	w.	119	142	104	5.3	2.0
Vicksburg, Miss.	247	29.76	30.02	−.03	65.9	+0.6	96	75	14	57	82	54	73	53.33	− 2.33	108	56,842	se.	46	nw.	134	105	126	5.3	1.6
New Orleans, La	51	29.98	30.04	+.02	69.2	+0.4	96	76	24	62	72	60	79	56.33	− 4.19	124	69,727	se.	47	se.	146	118	101	5.0	T.
West Gulf States.					66.8	+1.1							77	44.52	+ 1.37									5.0	
Shreveport, La	249	29.76	30.02	−.02	66.2	+1.0	98	76	13	57	85	55	75	48.58	− 0.02	100	58,112	s.	38	se.	115	80	170	5.7	1.0
Fort Smith, Ark	457	29.53	30.02	+.01	62.6	+2.8	100	72	6	53	94	51	73	39.05	− 5.69	103	63,511	e.	48	w.	126	99	140	5.6	2.7
Little Rock, Ark	357	29.66	30.05	+.01	62.7	+1.2	96	72	5	54	91	53	77	43.54	−10.09	126	60,067	nw.	44	nw.	121	144	100	5.2	3.3
Corpus Christi, Tex	18	29.97	29.99	−.02	70.8	+0.7	97	76	29	66	68	64	82	29.30	− 0.90	99	104,270	se.	47	nw.	151	112	102	4.5	
Fort Worth, Tex	670	.....	.....	.....	65.6	.....	102	76	12	55	90	.....	.....	36.89	.....	80	96,767	s.	52	se.	166	131	68	4.2	0.9
Galveston, Tex	54	29.94	29.99	−.02	70.0	+0.2	94	75	25	65	69	63	82	69.66	+20.98	113	78,938	se.	84	ne	131	129	105	5.2	
Palestine, Tex	510	29.47	30.01	−.03	66.2	+1.0	96	76	11	57	85	56	76	44.32	− 2.19	108	63,761	s.	40	nw.	140	100	125	5.2	1.1
San Antonio, Tex	701	29.26	29.99	−.01	69.2	+0.7	100	80	19	59	81	57	74	37.19	+ 7.49	96	63,746	se.	70	w.	129	136	100	4.8	
Ohio Valley and Tenn.					57.5	+1.6							72	37.70	− 7.56									5.3	
Chattanooga, Tenn	762	29.28	30.09	+.02	61.0	+1.1	98	70	8	52	90	49	71	46.78	− 6.12	139	57,171	sw.	44	sw.	122	156	87	5.0	8.9
Knoxville, Tenn	1,004	29.02	30.08	.00	59.5	+2.3	98	70	5	50	93	48	75	44.11	− 6.88	134	58,287	sw.	48	w.	169	95	101	4.6	12.9
Memphis, Tenn	397	29.63	30.06	+.02	62.7	+1.6	96	71	5	54	91	51	71	47.42	− 5.86	119	82,652	s.	59	nw.	116	124	125	5.4	1.3
Nashville, Tenn	546	29.49	30.08	+.04	60.4	+1.1	98	70	2	51	96	49	73	48.54	− 1.56	114	55,654	nw.	44	se.	130	106	129	5.4	8.7
Lexington, Ky	989	.....	.....	.....	56.3	+1.4	97	66	− 4	47	101	.....	.....	33.67	−10.71	123	85,060	sw.	48	w.	124	129	92	5.0	17.4
Louisville, Ky	525	29.49	30.06	+.01	58.4	+1.7	101	68	0	49	101	47	73	38.04	− 7.72	122	70,668	sw.	41	n.	143	122	100	5.0	9.3
Evansville, Ind	434	.....	.....	.....	58.6	.....	100	67	− 2	50	102	.....	.....	44.22	.....	114	62,115	s.	44	n.	182	88	95	4.2	6.4
Indianapolis, Ind	822	29.16	30.04	.00	54.0	+1.3	94	63	− 7	45	101	42	69	38.45	− 4.51	119	88,247	s.	54	sw.	97	133	135	5.8	15.5
Cincinnati, Ohio	628	29.39	30.06	+.01	56.0	+0.9	97	65	− 5	47	102	45	70	27.78	−12.09	119	65,001	sw.	42	nw.	124	114	127	5.5	9.7
Columbus, Ohio	824	29.17	30.05	+.01	53.8	+1.7	97	63	− 7	44	104	43	72	30.30	− 8.59	124	68,076	sw.	38	nw.	127	106	132	5.5	11.6
Pittsburg, Pa	842	29.14	30.04	.00	54.7	+1.8	98	64	− 4	46	102	42	69	25.73	−10.95	138	56,690	nw.	37	nw.	108	156	101	5.4	22.7
Parkersburg, W. Va	638	29.40	30.09	+.02	55.6	+2.3	98	65	− 1	46	99	45	75	33.84	− 8.13	135	49,813	s.	40	nw.	136	110	119	5.3	15.5
Elkins, W. Va	1,940	.....	.....	.....	50.6	.....	92	62	−11	39	103	.....	.....	42.37	.....	161	39,566	w.	39	w.	76	145	144	6.2	52.3
Lower Lake Region.					49.6	+1.5							74	32.31	− 2.64									6.0	
Buffalo, N. Y	767	29.19	30.02	+.01	48.8	+2.3	95	55	− 1	42	96	40	73	35.93	− 2.11	161	123,441	sw.	80	w.	44	171	150	6.9	99.1
Oswego, N. Y	335	29.64	30.01	−.01	47.0	+0.6	94	55	− 3	39	97	39	76	37.17	+ 2.15	156	96,280	se.	50	se.	97	109	159	6.0	104.4
Rochester, N. Y	523	29.44	30.01	.00	49.2	+2.4	96	58	− 1	41	97	39	72	38.12	+ 3.30	166	71,307	sw.	46	sw.	105	124	136	5.9	131.3
Erie, Pa	713	29.26	30.03	+.02	49.9	+1.2	92	57	− 4	43	96	42	77	32.62	− 8.66	155	97,814	w.	49	nw.	95	125	145	6.0	53.6
Cleveland, Ohio	762	29.21	30.03	+.02	50.4	+1.5	92	58	− 4	43	96	40	71	25.83	−10.46	143	127,648	se.	63	sw.	106	135	124	5.6	49.7
Sandusky, Ohio	629	29.36	30.04	.00	51.3	+1.3	95	59	− 2	44	97	42	73	31.80	− 3.11	131	72,196	sw.	48	w.	75	111	179	6.6	30.4
Toledo, Ohio	628	29.36	30.04	+.02	50.7	+1.1	94	59	− 4	42	98	41	74	29.58	− 1.35	130	88,051	sw.	48	w.	151	113	101	5.0	43.2
Detroit, Mich	730	29.23	30.02	.00	49.4	+1.3	94	57	− 2	42	96	41	76	31.45	− 0.88	134	88,254	sw.	50	nw.	93	131	141	6.0	69.1
Upper Lake Region.					42.9	+2.1							79	26.38	− 3.71									6.0	
Alpena, Mich	609	29.34	30.02	+.01	44.1	+2.8	95	52	−14	36	109	37	79	23.03	−12.05	137	85,510	nw.	46	nw.	107	79	179	6.2	35.3
Escanaba, Mich	612	29.33	30.01	+.02	42.6	+2.4	92	51	−13	35	105	36	82	26.86	− 5.60	126	79,334	s.	36	nw.	77	115	173	6.4	14.8
Grand Haven, Mich	632	29.32	30.00	.00	47.5	+1.2	88	55	− 1	40	89	41	81	32.33	− 2.44	147	89,472	nw.	48	nw.	110	110	145	5.9	67.5
Marquette, Mich	734	29.19	30.00	.00	42.9	+2.4	94	50	− 9	36	103	37	82	32.32	− 0.05	181	90,752	nw.	45	se.	59	126	180	6.9	125.2
Port Huron, Mich	638	29.35	30.05	+.04	47.3	+2.1	97	55	− 9	39	106	40	79	28.73	− 2.87	145	97,119	sw.	50	w.	109	128	128	5.8	73.2
Sault Ste. Marie, Mich	614	29.31	29.99	−.01	41.5	+2.5	89	50	−22	33	111	35	81	30.93	+ 1.40	147	74,494	se.	49	nw.	111	103	151	5.9	32.1
Chicago, Ill	823	29.15	30.04	+.02	49.2	+0.9	94	56	− 9	42	103	42	80	28.65	− 6.11	116	145,184	w.	72	sw.	120	140	105	5.3	36.8
Milwaukee, Wis	681	29.20	30.03	+.01	47.9	+2.9	96	56	−10	40	106	38	74	30.10	− 1.96	130	94,323	w.	44	e.	106	95	164	5.9	60.7
Green Bay, Wis	617	29.35	30.03	+.03	45.7	+2.3	96	54	−12	37	108	37	74	32.76	+ 0.46	128	72,374	n.	45	nw.	81	106	178	6.5	35.8
Duluth, Minn	702	29.23	30.01	+.01	41.2	+1.9	93	49	−22	34	115	32	76	23.14	− 7.87	131	86,641	ne.	54	nw.	103	146	116	5.5	26.8
North Dakota.					42.3	+3.6							72	20.45	+ 1.45									4.5	
Moorhead, Minn	935	28.98	30.02	.00	42.0	+4.4	100	53	−26	31	126	33	78	27.50	+ 3.73	114	93,067	se.	47	se.	127	122	116	5.3	24.9
Bismarck, N. Dak	1,674	28.21	30.02	+.01	42.9	+3.3	105	55	−33	31	138	30	66	17.88	− 0.50	77	86,093	nw.	46	nw.	198	87	80	4.3	35.2
Williston, N. Dak	1,875	27.98	30.00	.00	42.1	+3.2	104	55	−36	30	140	31	72	15.81	+ 1.11	78	84,330	n.	50	nw.	229	99	37	4.0	36.8
Upper Mississippi Valley.					52.0	+2.1							74	33.87	− 0.34									5.0	
Minneapolis, Minn	.....	.....	.....	.....	46.3	+2.0	95	56	−19	37	114	.....	.....	34.89	+ 7.68	100	101,194	nw.	48	se.	103	136	126	.....	36.4
St. Paul, Minn	837	29.00	30.01	.00	46.5	+3.2	96	55	−18	38	114	36	72	34.22	+ 6.75	102	71,436	nw.	38	nw.	117	150	98	5.2	31.1
La Crosse, Wis	714	.....	.....	.....	47.6	+1.6	96	56	−14	39	110	.....	.....	41.85	+11.17	124	61,252	s.	36	nw.	128	121	116	5.2	57.4
Davenport, Iowa	606	29.36	30.02	−.01	51.2	+2.0	97	60	− 8	42	105	41	74	30.17	− 3.55	114	66,314	w.	44	sw.	152	88	125	5.1	23.1

TABLE I.—*Annual climatological summary, Weather Bureau stations*, 1900—Continued.

Districts and stations.	Elevation of barometer above sea level.	Pressure in inches.†			Temperature of the air, in degrees Fahrenheit.							Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation.			Winds.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall, in inches.‡
		Mean actual, 8 a. m. + 8 p. m. ÷ 2.	Mean reduced.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Mean maximum.	Minimum.	Mean minimum.	Annual range.			Total, in inches.	Departure from normal.	Days with .01, or more.	Total movement, miles.	Prevailing direction.	Max. velocity. Miles, per hour.	Max. velocity. Direction.					
Upper Miss. Val.—Con.																									
Des Moines, Iowa	861	29.11	30.05	+.03	50.7	+2.2	95	60	−10	41	105	43	79	38.46	+ 5.35	98	71,994	sw.	44	sw.	109	149	107	5.5	18.9
Dubuque, Iowa	698	29.27	30.03	+.01	49.4	+1.8	95	58	−13	40	108	40	75	33.43	− 2.10	118	66,091	nw.	42	nw.	145	123	97	4.8	35.6
Keokuk, Iowa	614	29.37	30.03	+.01	53.5	+2.1	98	62	− 4	44	102	43	75	33.61	− 1.11	104	66,737	nw.	48	w.	171	107	87	4.2	21.1
Cairo, Ill	356	29.67	30.06	+.02	59.6	+1.9	97	68	0	51	97	50	77	36.89	− 5.94	122	69,221	s.	45	nw.	90	164	111	5.6	9.8
Springfield, Ill	644	29.35	30.04	.00	54.2	+1.9	97	63	− 4	45	101	43	72	30.36	− 7.65	117	80,609	s.	44	w.	131	136	98	5.0	35.6
Hannibal, Mo	534	.....	.....	.....	54.5	+2.0	99	64	− 2	45	101	.....	.....	29.16	− 2.80	109	79,337	sw.	48	s.	162	111	92	4.4	29.2
St. Louis, Mo	567	29.43	30.04	.00	58.3	+2.7	99	66	1	50	98	47	72	29.51	−11.57	103	85,303	s.	59	sw.	146	108	111	4.9	15.9
Missouri Valley.					52.2	+2.9							69	30.78	+ 1.54									4.8	
Columbia, Mo	784	.....	.....	.....	55.4	+1.0	100	66	− 4	44	104	.....	.....	36.00	− 3.93	118	70,553	s.	40	nw.	124	112	129	5.4	38.1
Kansas City, Mo	963	29.01	30.04	+.02	55.8	+2.6	98	65	− 1	47	99	44	70	35.78	− 0.56	102	72,757	se.	42	nw.	159	90	116	4.6	22.5
Springfield, Mo	1,324	28.68	30.03	.00	56.9	+2.0	96	65	− 8	48	104	47	76	42.72	− 3.00	122	86,353	se.	63	nw.	159	125	81	4.5	11.5
Topeka, Kans	.....	.....	.....	.....	55.5	+1.7	101	66	− 1	45	102	.....	.....	30.81	− 3.59	97	.....	s.	.....	.....	115	171	79	4.8	29.8
Lincoln, Nebr	1,189	28.72	29.99	−.04	52.7	+2.6	100	63	−12	42	112	41	70	33.72	+ 7.41	87	96,393	s.	78	w.	169	100	96	4.6	13.3
Omaha, Nebr	1,105	28.82	30.00	−.05	52.5	+2.9	97	62	− 9	43	106	42	74	31.20	− 0.49	87	76,435	se.	45	nw.	148	137	80	4.8	10.1
Valentine, Nebr	2,598	27.27	29.99	−.05	49.5	+3.2	102	62	−21	37	123	34	66	22.43	+ 3.08	90	.....	nw.	.....	.....	.....	.....	.....	.....	.....
Sioux City, Iowa	1,135	.....	.....	.....	49.5	+2.5	97	59	−12	48	109	.....	.....	33.32	+ 8.72	92	113,036	nw.	70	se.	169	109	87	4.6	14.5
Pierre, S. Dak	1,572	28.31	29.99	−.04	49.8	+4.4	110	62	−15	38	125	32	57	16.81	+ 1.04	90	96,252	se.	60	n.	145	116	104	4.8	21.1
Huron, S. Dak	1,306	28.58	30.00	−.04	46.6	+4.3	103	59	−20	34	123	35	71	24.73	+ 3.70	87	105,724	se.	60	se.	164	130	71	4.4	17.3
Yankton, S. Dak	1,233	.....	.....	.....	50.1	+4.3	100	61	−12	39	112	.....	.....	31.38	+ 4.56	90	82,165	s.	54	s.	145	125	95	5.0	14.5
Northern Slope.					47.4	+3.3							63	12.79	− 1.58									4.7	
Havre, Mont	2,505	27.31	29.97	−.04	44.7	+3.6	108	57	−37	32	145	32	67	11.43	− 2.66	85	90,900	sw.	54	*	161	148	56	4.6	28.1
Miles City, Mont	2,871	27.43	29.93	−.09	48.6	+4.4	110	61	−16	36	126	38	77	10.55	− 2.16	65	57,098	nw.	50	e.	204	108	53	3.7	16.0
Helena, Mont	4,110	25.79	30.00	−.03	46.0	+2.9	102	56	−23	36	125	28	56	11.62	− 1.56	79	67,282	sw.	58	w.	92	128	145	5.9	58.1
Kalispell, Mont	2,965	26.91	30.02	.....	44.3	.....	92	54	−19	34	111	32	70	17.69	.....	116	50,451	nw.	37	sw.	105	116	144	5.7	33.7
Rapid City, S. Dak	3,234	26.57	29.91	−.10	49.4	+3.4	106	61	−18	38	124	33	60	13.32	− 3.39	81	69,908	nw.	46	nw.	174	125	66	4.2	24.3
Cheyenne, Wyo	6,088	23.99	29.99	−.02	46.4	+2.0	92	59	−18	34	110	24	50	16.09	+ 3.89	84	93,554	nw.	54	w.	146	159	60	4.3	70.1
Lander, Wyo	5,372	24.63	30.02	−.01	44.9	+2.7	96	60	−30	30	126	27	50	14.23	+ 0.78	61	35,313	sw.	52	sw.	147	147	71	4.5	65.6
North Platte, Nebr	2,821	27.07	30.01	−.01	51.8	+3.9	100	64	−11	39	111	37	65	12.29	+ 5.98	69	79,049	w.	49	nw.	169	145	51	4.4	17.9
Middle Slope.					55.6	+2.1							64	23.04	+ 0.71									4.3	
Denver, Colo	5,291	24.72	30.00	+.01	51.9	+2.5	97	65	−19	38	116	27	48	15.29	+ 0.80	64	72,511	s.	53	nw.	188	135	52	3.9	49.5
Pueblo, Colo	4,685	25.27	29.97	−.01	52.5	+1.4	100	67	−16	38	116	29	50	13.37	+ 1.26	60	58,917	nw.	48	w.	208	130	32	3.7	25.2
Concordia, Kans	1,398	28.53	30.01	−.03	55.3	+3.1	104	66	− 4	45	108	43	72	25.54	+ 0.05	91	67,534	s.	35	sw.	144	144	77	4.7	11.3
Dodge, Kans	2,509	27.88	29.98	−.02	56.1	+3.0	104	69	− 6	43	110	42	70	20.76	+ 0.92	73	96,660	se.	49	nw.	193	124	48	4.0	26.3
Wichita, Kans	1,358	28.58	30.01	+.01	57.4	+2.0	104	67	− 1	48	105	45	70	31.83	+ 3.08	86	75,884	s.	39	n.	158	113	94	4.6	22.1
Oklahoma, Okla	1,214	28.71	30.00	.00	60.1	+0.7	98	70	5	50	93	48	71	31.45	− 1.84	85	88,278	s.	50	nw.	146	102	117	5.0	4.3
Southern Slope.					60.4	+1.3							64	23.20	+ 6.65									3.9	
Abilene, Tex	1,738	28.18	29.99	−.02	64.4	+1.0	105	75	14	54	91	48	64	32.11	+ 7.09	67	79,968	se.	58	w.	180	115	70	4.2	5.5
Amarillo, Tex	3,776	26.24	29.98	−.02	56.3	+1.5	98	68	1	44	97	41	64	24.40	+ 6.21	84	123,891	s.	64	e.	201	94	70	3.8	12.9
Southern Plateau.					63.4	+1.0							36	6.86	− 1.04									2.5	
El Paso, Tex	3,762	26.15	29.93	−.02	64.2	+0.8	103	78	17	50	86	31	39	7.95	− 1.38	48	86,912	nw.	55	sw.	205	130	30	3.0	1.5
Santa Fe, N. Mex	7,013	23.26	29.97	−.02	50.5	+2.2	89	61	7	40	82	22	42	15.89	+ 1.64	82	58,149	se.	44	s.	226	107	32	3.1	27.4
Phoenix, Ariz	1,108	28.74	29.89	−.05	70.7	+1.6	112	85	22	56	90	34	33	5.39	− 1.82	19	36,980	e.	40	e.	256	72	37	2.5	
Yuma, Ariz	141	29.69	29.83	−.06	72.1	−0.1	112	87	31	57	81	40	38	0.85	− 2.12	10	53,148	w.	42	*	.....	.....	.....	1.4	
Independence, Cal	3,910	25.95	29.88	−.06	59.8	+0.7	100	72	15	47	85	21	28	4.22	− 1.52	36	73,977	nw.	66	s.	248	100	17	2.4	0.4
Middle Plateau.					52.0	+1.7							45	7.41	− 3.37									4.1	
Carson City, Nev	4,720	25.26	30.01	+.02	50.5	+0.9	95	64	6	37	89	29	50	7.05	− 4.91	47	58,806	w.	60	w.	154	123	88	4.4	23.6
Winnemucca, Nev	4,344	25.66	30.03	+.03	49.4	+0.8	98	63	4	36	94	26	49	7.41	− 1.05	62	80,190	sw.	60	w.	143	90	132	5.2	20.1
Cedar City, Utah	5,850	24.26	30.01	.....	52.9	.....	95	63	7	42	88	21	38	8.44	.....	56	56,492	se.	36	se.	187[k]	93[k]	74[k]	3.7	41.8
Salt Lake City, Utah	4,366	25.61	30.00	−.03	53.8	+2.5	101	64	2	44	99	29	47	11.53	− 4.66	62	51,387	se.	60	n.	217	81	67	3.4	32.7
Grand Junction, Colo	4,608	25.37	29.99	.....	54.5	+2.5	104	68	3	41	101	23	39	3.64	− 4.86	51	46,880	se.	41	nw.	172	122	71	4.0	8.5
Northern Plateau.					50.7	+2.3							64	14.71	− 1.26									5.6	
Baker City, Oreg	3,471	26.44	30.03	−.02	47.3	+2.4	95	57	− 1	38	96	31	62	13.84	− 1.31	116	51,100	s.	50	sw.	94	81	190	6.4	37.8
Boise, Idaho	2,739	27.17	30.02	−.02	52.5	+1.8	104	64	11	41	93	34	58	12.77	− 1.65	78	39,440	nw.	55	sw.	138	123	104	4.9	12.9
Pocatello, Idaho	4,482	25.47	30.00	−.05	49.3	+3.9	100	61	−15	38	115	30	58	9.35	− 5.92	81	90,224	s.	48	w.	157	85	123	5.0	36.0
Spokane, Wash	1,943	27.96	30.02	.00	49.8	+2.0	100	59	−10	40	110	35	66	18.72	+ 0.47	124	52,304	sw.	48	w.	66	86	213	6.9	19.2
Walla Walla, Wash	1,000	28.94	30.01	−.03	54.4	+1.2	102	64	− 2	45	104	44	74	18.89	+ 2.12	117	49,500	s.	35	s.	136	147	82	4.8	15.8
North Pacific Coast.					51.4	+1.1							80	51.43	− 1.50									6.2	
Neah Bay, Wash	50	29.94	30.00	−.02	49.2	−0.4	73	54	18	45	55	46	88	112.78	+ 5.53	199	63,143	w.	54	w.	80	102	183	6.5	3.0
Port Crescent, Wash	229	.....	.....	.....	47.6	+1.0	81	55	15	40	66	.....	.....	44.53	− 1.75	178	35,933	w.	45	w.	74	150	141	6.2	4.5
Seattle, Wash	123	29.89	30.02	−.01	52.8	+1.9	86	60	21	46	65	45	78	36.48	− 0.96	162	49,157	se.	35	s.	72	133	160	6.3	1.3
Tacoma, Wash	213	.....	.....	.....	51.6	+1.8	85	59	16	44	69	.....	.....	46.82	+ 2.19	173	50,147	sw.	40	sw.	71	92	202	6.8	1.5
Portland, Oreg	154	29.87	30.03	−.03	53.5	+1.0	90	61	19	46	71	45	76	38.22	− 8.61	164	72,575	nw.	53	s.	91	104	170	6.1	1.4
Roseburg, Oreg	518	29.45	30.02	−.05	54.0	+1.3	95	63	26	45	69	45	76	29.74	− 5.43	148	37,077	nw.	28	w.	112	123	130	5.5	1.6
Middle Pacific.					57.1	+0.7							71	24.46	− 4.95									4.6	
Eureka, Cal	62	30.00	30.06	+.01	53.2	+1.8	72	58	34	48	38	48	85	44.98	− 0.85	107	54,926	nw.	44	nw.	100	141	124	5.6	
Mount Tamalpais, Cal	2,375	27.54	30.01	.....	55.5	.....	92	62	33	49	59	39	63	25.94	.....	84	156,225	w.	81	nw.	209	74	82	3.6	
Red Bluff, Cal	332	29.62	29.97	−.02	62.5	0.0	109	73	29	52	80	44	60	21.77	− 4.34	78	49,948	se.	37	n.	212	67	86	3.8	
Sacramento, Cal	69	29.90	29.98	−.01	59.9	+0.1	102	70	30	50	72	47	68	17.91	− 2.96	60	71,377	se.	51	se.	171	79	115	4.7	
San Francisco, Cal	155	29.89	30.02	+.01	56.2	+0.4	92	62	40	50	52	49	81	15.33	− 8.38	55	91,064	w.	48	s.	181	116	68	4.0	
Point Reyes Light, Cal	.....	.....	.....	.....	53.6	+1.4	84	59	40	48	46	.....	.....	22.38	− 8.23	56	133,561	nw.	75	nw.	119	67	179	6.0	
South Pacific.					62.1	+1.2							68	11.30	− 3.23									3.6	
Fresno, Cal	330	29.61	29.96	−.01	62.8	−0.2	109	75	26	51	83	43	60	11.09	+ 2.09	41	43,471	nw.	26	nw.	217	54	94	3.8	
Los Angeles, Cal	338	29.60	29.95	−.01	63.5	+2.1	96	74	37	52	59	50	71	11.30	− 6.00	23	37,610	w.	23	nw.	152	170	43	3.7	
San Diego, Cal	87	29.85	29.95	−.03	62.0	+1.3	89	68	44	56	45	51	72	5.77	− 4.74	32	49,945	nw.	30	nw.	288	37	40	2.8	
San Luis Obispo, Cal	201	29.79	30.01	+.02	60.2	+1.5	106	72	31	48	75	47	69	17.04	− 4.48	36	45,166	w.	28	*	185	102	78	4.0	
West Indies.																									
Basseterre, St Kitts	29	29.97	30.00	.....	79.4	.....	89	84	67	74	22	71	75	38.00	.....	210	90,799	e.	36	se.	109	190	66	4.9	
Bridgetown, Barbados	30	29.93	29.96	.....	80.1	.....	90	86	68	74	22	72	78	40.61	.....	202	76,018	e.	31	e.	39	227	99	6.1	
Havana, Cuba	57	29.95	30.01	.....	76.2	.....	91	82	53	70	38	69	82	38.92	−12.79	117	96,680	e.	42	nw.	72	179	114	5.9	
Port of Spain, Trinidad	40	29.89	29.93	.....	79.7	.....	92	87	66	72	26	72	79	67.12	.....	203	37,238	e.	22	w.	66	177	122	6.2	
Puerto Principe, Cuba	352	29.64	29.98	.....	76.7	.....	96	86	49	67	47	70	88	62.12	.....	143	61,990	ne.	33	e.	116	154	95	5.4	
Roseau, Dominica	25	29.94	29.97	.....	79.9	.....	91	86	68	74	23	69	72	45.01	.....	203	47,098	ne.	26	ne.	104	177	84	5.2	
San Juan, Porto Rico	82	29.92	30.00	.....	78.5	.....	93	84	66	73	27	71	79	56.29	+ 1.78	211	98,085	e.	43	ne.	162	159	44	4.2	
Santiago de Cuba, Cuba	82	29.88	29.96	.....	79.6	.....	95	88	59	71	36	70	79	59.94	.....	110	34,800	ne.	25	sw.	111	188	66	5.2	
Santo Domingo, S. D	57	29.95	30.01	.....	77.5	.....	98	84	59	70	34	71	85	64.03	.....	174	48,711	n.	27	s.	128	180	47	4.5	
Willemstad, Curaçao	75	29.82	29.89	.....	81.4	.....	98	86	70	77	23	72	77	16.08	.....	103	109,659	e.	30	e.	97	213	55	5.0	

*Two or more directions. †Reduced to standard gravity. ‡For the snow year, July 1, 1899, to June 30, 1900.

TABLE II.—*Annual climatological summary, Canadian stations*, 1900.

Stations.	Pressure.* Mean not reduced.	Pressure.* Mean reduced.	Pressure.* Departure from normal.	Temperature. Mean.	Temperature. Departure from normal.	Temperature. Mean maximum.	Temperature. Mean minimum.	Precipitation Total.	Precipitation Departure from normal.	Total depth of snowfall.†
	Ins.	*Ins.*	*Ins.*	°	°	°	°	*Ins.*	*Inches.*	*Ins.*
St. Johns, N. F.	29.72	29.87	−.06	40.8	+0.3	47.9	33.8	53.19	− 2.08	37.9
Sydney, C. B. I.	29.90	29.94	+.01	43.1	+1.8	51.5	34.7	61.72	+ 9.38	77.2
Halifax, N. S.	29.85	29.96	.00	45.6	+2.8	54.2	37.1	59.77	+ 4.33	55.5
Grand Manan, N. B	29.91	29.96	−.02	44.4	+1.6	52.1	36.8	62.56	+17.94	83.4
Yarmouth, N. S.	29.90	29.98	.00	45.0	+1.8	52.2	37.8	60.31	+14.18	70.2
Charlottetown, P. E. I.	29.89	29.93	−.02	43.4	+2.4	51.2	35.5	44.72	+ 2.94	72.2
Chatham, N. B.	29.91	29.93	−.03	40.2	+1.5	50.4	30.1	36.29	− 7.67	101.0
Father Point, Que.	29.90	29.93	−.02	35.1	+0.3	44.1	26.1	31.80	+ 2.00	112.7
Quebec, Que.	29.63	29.97	−.01	39.5	+1.3	47.8	31.3	41.46	− 1.32	97.3
Montreal, Que	29.77	29.98	.00	42.8	+1.3	50.7	35.0	53.24	+14.43	142.6
Bissett, Ont.	29.40	30.02	+.04	38.7	+0.5	52.2	25.2	31.98	+ 0.93	67.9
Ottawa, Ont.	29.64	29.96	−.02	43.0	+2.4	52.5	33.5	34.83	+ 1.97	84.4
Kingston, Ont.	29.68	30.00	+.02	44.9	+1.8	53.2	36.5	30.85	− 3.09	82.5
Toronto, Ont.	29.63	30.01	−.01	47.3	+3.1	56.3	38.3	29.60	− 1.15	67.6
White River, Ont.	28.64	30.02	−.01	34.1	+2.2	47.4	20.9	27.78	+ 4.19	66.9
Port Stanley, Ont.	29.38	30.02	.00	46.7	+2.0	55.4	38.1	36.09	+ 1.92	104.9
Saugeen, Ont.	29.29	30.02	+.02	45.0	+2.6	53.3	36.6	31.55	− 2.83	92.2
Parry Sound, Ont.	29.29	30.00	.00	43.1	+2.9	53.4	32.9	42.28	+ 4.96	157.1
Port Arthur, Ont.	29.27	29.98	−.02	37.8	+3.4	48.1	27.6	27.09	+ 3.05	18.1
Winnipeg, Man.	29.17	30.02	.00	36.9	+3.8	49.1	24.6	18.58	− 4.87	22.9
Minnedosa, Man.	28.15	30.00	.00	36.5	+4.9	48.2	24.8	19.70	+ 1.97	38.3
Qu'Appelle, Assin.	27.67	29.97	−.03	36.4	+3.1	47.6	25.2	16.52	+ 1.58	70.7
Medicine Hat, Assin.	27.64	29.95	−.03	43.6	+3.3	56.5	30.8	21.80	+11.03	29.0
Swift Current, Assin.	27.38	29.99	−.02	40.0	+2.5	52.4	29.6	14.44	− 1.41	17.8
Calgary, Alberta.	26.35	29.92	−.07	38.6	+1.4	50.8	26.3	17.57	+ 4.29	33.1
Banff, Alberta	25.50	29.98	.....	37.3	+2.6	47.6	27.0	23.14	+ 2.39	70.7
Edmonton, Alberta	27.58	29.91	−.07	37.8	+2.2	48.4	27.2	27.81	+14.00	71.5
Prince Albert, Sask.	28.37	29.95	.....	33.2	+2.7	44.2	22.2	22.40	+ 9.03	39.2
Battleford, Sask.	28.20	29.98	.....	34.9	+2.2	45.6	24.3	20.37	+ 7.76	27.7
Kamloops, B. C.	28.74	30.02	.....	48.3	+1.2	57.0	39.7	10.84	− 0.24	4.0
Victoria, B. C.	29.91	30.01	.....	50.7	+2.3	56.3	45.1	24.73	− 9.28	6.0
Barkerville, B. C.	25.57	29.91	.....	37.6	+1.4	47.7	27.5	39.51	+ 6.98	114.0
Hamilton, Bermuda	29.92	30.08	+.02	69.9	+0.2	74.9	64.8	66.75	+ 3.45	0.0

*Reduced to standard gravity. †For the snow year, July 1, 1899, to June 30, 1900

TABLE III.—*Reduction data for* 1900.

Stations.	Elevation.	Mean observed pressure.	Mean observed temperature.	Mean dew-point.	Mean reduction temperature.	Mean pressure reduced to sea level.	Mean temperature reduced to sea level.	Mean pressure at 10,000 feet altitude.
1	2	3	4	5	6	7	8	9
New England States.	*Feet.*	*Inches.*	° *F.*	° *F.*	° *F.*	*Inches.*	° *F.*	*Inches.*
Eastport, Me.	76	29.88	42.5	36	42.6	29.97	42.7	20.51
Portland, Me	103	29.86	46.2	36	46.3	29.96	46.4	20.56
Northfield, Vt	876	29.05	41.6	34	43.5	30.00	44.4	20.54
Boston, Mass.	125	29.86	50.8	41	50.9	30.00	51.0	20.66
Nantucket, Mass	12	30.00	50.4	44	50.4	30.01	50.4	20.66
Block Island, R. I.	26	29.98	50.6	43	50.6	30.01	50.6	20.67
New Haven, Conn	106	29.90	51.1	41	51.2	30.01	51.3	20.67
Middle Atlantic States.								
Albany, N. Y.	97	29.92	50.1	39	50.2	30.03	50.3	20.67
New York, N. Y.	314	29.69	54.3	43	54.6	30.03	54.9	20.76
Philadelphia, Pa.	117	29.93	56.0	44	56.1	30.05	56.2	20.79
Atlantic City, N. J.	52	30.00	53.8	46	54.3	30.06	54.4	20.76
Baltimore, Md.	123	29.92	57.0	46	57.1	30.05	57.2	20.80
Washington, D. C.	112	29.94	56.5	45	56.6	30.06	56.8	20.80
Lynchburg, Va.	681	29.33	58.4	46	59.1	30.05	59.8	20.83
Norfolk, Va	91	29.97	60.7	51	60.8	30.07	60.9	20.87
South Atlantic States.								
Charlotte, N. C.	773	29.24	60.8	48	61.6	30.06	62.4	20.87
Hatteras, N. C.	11	30.06	62.8	56	62.8	30.07	62.8	20.89
Raleigh, N. C.	376	29.68	61.3	50	61.7	30.08	62.1	20.89
Wilmington, N. C.	78	29.99	63.8	55	63.9	30.08	64.0	20.93
Charleston, S. C.	48	30.04	66.8	56	66.9	30.09	67.0	20.99
Augusta, Ga	180	29.88	64.5	53	64.7	30.07	64.9	20.93
Savannah, Ga.	65	30.01	67.2	58	67.3	30.07	67.4	20.98
Jacksonville, Fla.	43	30.02	69.4	60	69.4	30.07	69.4	21.01
Florida Peninsula.								
Jupiter, Fla.	28	30.00	74.3	67	74.3	30.03	74.3	21.06
Key West, Fla.	22	30.00	75.9	68	75.9	30.02	75.9	21.08
Tampa, Fla	34	30.01	71.5	62	71.5	30.05	71.5	21.03
East Gulf States.								
Atlanta, Ga.	1,174	28.84	61.9	50	63.0	30.08	64.1	20.92
Mobile, Ala	57	29.99	67.1	59	67.2	30.05	67.3	20.96
Montgomery, Ala.	223	29.82	65.7	55	65.9	30.05	66.1	20.94
Vicksburg, Miss.	247	29.76	65.9	54	66.2	30.02	66.5	20.92
New Orleans, La.	51	29.98	69.2	60	69.3	30.04	69.4	20.99
West Gulf States.								
Shreveport, La	249	29.76	66.2	55	66.4	30.02	66.6	20.93
Fort Smith, Ark	457	29.53	62.6	51	63.1	30.01	63.6	20.87
Little Rock, Ark.	357	29.66	62.7	53	63.0	30.05	63.3	20.89
Corpus Christi, Tex	18	29.97	70.8	64	71.7	29.99	71.7	20.99
Galveston, Tex	54	29.94	70.0	63	70.0	29.99	70.0	20.96
Palestine, Tex.	510	29.47	66.2	56	66.7	30.01	67.2	20.92
San Antonio.	701	29.26	69.2	57	69.9	29.99	70.6	20.95

TABLE III.—*Reduction data for* 1900.—Continued.

Stations.	Elevation.	Mean observed pressure.	Mean observed temperature.	Mean dew-point.	Mean reduction temperature.	Mean pressure reduced to sea level.	Mean temperature reduced to sea level.	Mean pressure at 10,000 feet altitude.
1	2	3	4	5	6	7	8	9
Ohio Valley and Tennessee.	*Feet.*	*Inches.*	° *F.*	° *F.*	° *F.*	*Inches.*	° *F.*	*Inches.*
Chattanooga, Tenn.	762	29.28	61.0	49	61.8	30.09	62.6	20.90
Knoxville, Tenn.	1,004	29.02	59.5	48	60.5	30.08	61.5	20.88
Memphis, Tenn	397	29.63	62.7	51	63.1	30.06	63.5	20.90
Nashville, Tenn	546	29.49	60.4	49	60.9	30.08	61.4	20.88
Louisville, Ky.	525	29.49	58.4	47	58.9	30.06	59.4	20.83
Indianapolis, Ind.	822	29.16	54.0	42	54.8	30.04	55.6	20.75
Cincinnati, Ohio	628	29.39	56.0	45	56.6	30.06	57.2	20.80
Columbus, Ohio	824	29.17	53.8	43	54.6	30.05	55.4	20.76
Pittsburg, Pa.	842	29.14	54.7	42	55.5	30.04	56.3	20.77
Parkersburg, W. Va.	638	29.40	55.6	45	56.2	30.09	56.8	20.81
Lower Lake Region.								
Buffalo, N. Y.	707	29.19	48.8	40	49.5	30.02	50.2	20.65
Oswego, N. Y.	335	29.64	47.0	39	47.3	30.01	47.6	20.61
Rochester, N. Y.	523	29.44	49.2	39	49.7	30.01	50 2	20.65
Erie, Pa.	713	29.26	49.9	42	50.6	30.03	51.3	20.68
Cleveland, Ohio	762	29.21	50.4	40	51.1	30.03	51.8	20.69
Sandusky, Ohio	629	29.36	51.3	42	51.9	30.04	52.5	20.71
Toledo, Ohio.	628	29.36	50.7	41	51.4	30.04	52.1	20.70
Detroit, Mich	730	29.23	49.4	41	50.1	30.02	50.8	20.67
Upper Lake Region.								
Alpena, Mich	609	29.34	44.1	37	44.7	30.01	45.3	20.58
Escanaba, Mich	612	29.33	42.6	36	43.2	30.01	43.8	20.56
Grand Haven, Mich	632	29.32	47.5	41	48.1	30.00	48.7	20.62
Marquette, Mich.	734	29.19	42.9	37	43.6	30.00	44.3	20.54
Port Huron, Mich	638	29.35	47.3	40	47.9	30.05	48.5	20.65
Sault Ste. Marie, Mich.	614	29.31	41.5	35	42.1	29.99	42.7	20.51
Chicago, Ill	823	29.15	49.2	42	50.0	30.04	50.8	20.68
Milwaukee, Wis	681	29.29	47.9	38	48.6	30.03	49.3	20.65
Green Bay, Wis.	617	29.35	45.7	37	46.3	30.03	46.9	20.61
Duluth, Minn.	702	29.23	41.2	32	41.9	30.00	42.6	20.52
North Dakota.								
Moorhead, Minn.	935	28.98	42.0	33	42.9	30.01	43.8	20.54
Bismarck, N. Dak	1,674	28.21	42.9	30	44.3	30.02	47.4	20.58
Williston, N. Dak.	1,875	27.98	42.1	31	43.1	30.00	45.0	20.54
Upper Mississippi Valley.								
St. Paul, Minn.	837	29.09	46.5	36	47.3	30.00	48.2	20.61
Davenport, Iowa	606	29.36	51.2	41	51.8	30.02	52.4	20.70
Des Moines, Iowa	861	29.11	50.7	43	51.6	30.05	52.5	20.71
Dubuque, Iowa	698	29.27	49.4	40	50.1	30.03	50.8	20.67
Keokuk, Iowa	614	29.37	53.5	43	54.1	30.03	54.7	20.74
Cairo, Ill.	356	29.67	59.6	50	60.0	30.06	60.4	20.85
Springfield, Ill.	644	29.35	54.2	43	54.8	30.04	55.4	20.76
St. Louis, Mo	567	29.43	58.3	47	58.9	30.04	59.5	20.82
Missouri Valley.								
Kansas City, Mo	963	29.01	55.8	44	56.8	30.04	57.8	20.79
Springfield, Mo.	1,324	28.63	56.9	47	58.2	30.03	59.5	20.80
Lincoln, Nebr.	1,189	28.72	52.7	41	54.4	29.98	55.6	20.71
Omaha, Nebr.	1,105	28.82	52.5	42	53.6	30.00	54.7	20.70
Valentine, Nebr.	2,598	27.27	49.5	34	52.1	29.98	54.7	20.67
Pierre, S. Dak.	1,572	28.31	49.8	32	49.9	29.99	51.4	20.64
Huron, S. Dak	1,306	28.58	46.6	35	49.2	29.98	50.5	20.62
Northern Slope.								
Havre, Mont.	2,505	27.31	44.7	32	46.6	29.95	49.1	20.56
Miles City, Mont.	2,371	27.43	48.6	38	49.5	29.92	51.9	20.60
Helena, Mont.	4,110	25.79	46.0	28	50.0	29.98	54.1	20.64
Kalispell, Idaho	2,965	26.91	44.3	32	47.3	30 02	50.3	20.62
Rapid City, S. Dak.	3,234	26.57	49.4	33	50.4	29.91	53.7	20.64
Cheyenne, Wyo.	6,088	23.99	46.4	24	51.7	29.99	57.8	20.67
Lander, Wyo.	5,372	24.63	44.9	27	49.9	29.98	55.3	20.63
North Platte, Nebr.	2,821	27.07	51.8	37	54.5	30.00	57.3	20.72
Middle Slope.								
Denver, Colo.	5,291	24.72	51.9	27	55.1	29.95	60.4	20.70
Pueblo, Colo.	4,685	25.27	52.5	29	55.8	29.94	60.5	20 71
Concordia, Kans.	1,398	28.53	55.3	43	57.2	30.00	58.6	20.77
Dodge, Kans.	2,509	27.38	56.1	42	58.9	29.96	61.4	20.76
Wichita, Kans.	1,358	28.58	57.4	45	59.1	30.00	60.5	20.80
Oklahoma, Okla.	1,214	28.71	60.1	48	61.0	29.99	62.2	20.82
Southern Slope.								
Abilene, Tex.	1,728	28.18	64.4	48	65.2	29.97	66.9	20.89
Amarillo, Tex.	3,676	26.24	56.3	41	59.7	29.94	63.4	20.77
Southern Plateau.								
El Paso, Tex.	3,762	26.15	64.2	31	66.4	29.89	70.2	20.84
Santa Fe, N. Mex.	7,013	23.26	50.5	22	57.8	29.95	64.8	20.75
Phoenix, Ariz.	1,108	28.74	70.7	34	70.1	29.88	71.2	20.89
Yuma, Ariz.	141	29.69	72.1	40	70.8	29.83	70.9	20.88
Independence, Cal.	3,910	25.95	59.3	21	63.2	29.85	65.7	20.75
Middle Plateau.								
Carson City, Nev.	4,720	25.26	50.5	29	55.2	29.98	59.9	20.72
Winnemucca, Nev.	4,344	25.66	49.4	26	55.4	30.03	60.9	20.76
Cedar City, Utah.	5,850	24.26	52.9	21	58.7	29.96	64.5	20.76
Salt Lake City, Utah.	4,366	25.61	53.8	29	55.8	29.99	62.1	20.74
Grand Junction, Colo.	4,608	25.37	54.5	23	59.1	29.95	63.7	20.76
Northern Plateau.								
Baker City, Oreg.	3,471	26.44	47.3	31	50.7	30.02	54.2	20.68
Boise, Idaho.	2,739	27.17	52.5	34	54.2	30.01	57.2	20.72
Pocatello, Idaho.	4,482	25.47	49.3	30	53.8	29.98	58.3	20.70
Spokane, Wash.	1,943	27.96	49.8	35	51.3	30.02	53.2	20.69
Walla Walla, Wash	1,000	28.94	54.4	44	52.8	30.01	53.8	20.70
North Pacific Coast.								
Neah Bay, Wash.	50	29.94	49.2	46	49.4	30.00	49.6	20.62
Seattle, Wash.	123	29.89	52.8	45	52.9	30.02	53.0	20.71
Portland, Oreg.	154	29.87	53.5	45	53.7	30.03	53.9	20.73
Roseburg, Oreg.	518	29.45	54.0	45	54.5	30.02	55.0	20.74
Middle Pacific Coast.								
Eureka, Cal.	62	30.00	53.2	48	55.4	30.06	55.5	20.78
Red Bluff, Cal.	332	29.62	62.5	44	56.3	29.97	56.6	20.73
Sacramento, Cal.	69	29.90	59.9	47	59.9	29.98	59.1	20.78
San Francisco, Cal.	155	29.86	56.2	49	56.4	30.02	56.6	20.77

TABLE III.—*Reduction data for* 1900—Continued.

Stations.	Elevation.	Mean observed pressure.	Mean observed temperature.	Mean dew-point.	Mean reduction temperature.	Mean pressure reduced to sea level.	Mean temperature reduced to sea level.	Mean pressure at 10,000 feet altitude.
1	2	3	4	5	6	7	8	9
	Feet.	*Inches.*	° *F.*	° *F.*	° *F.*	*Inches.*	° *F.*	*Inches.*
South Pacific Coast.								
Fresno, Cal	330	29 61	62.8	43	60.6	29.96	60.9	20.79
Los Angeles, Cal	338	29.60	63.5	50	63.5	29.95	63.8	20.83
San Diego, Cal	87	29.85	62.0	51	64.5	29.95	64.6	20 85
San Luis Obispo, Cal	201	29.79	60.2	47	60.4	30.01	60.6	20.83
Canadian Stations.								
St. Johns, N. F	125	29.72	40.8	....	40.9	29.87	41.0	20.41
Sydney, C. B. I	35	29.90	43.1	....	43.2	29.94	43.3	20.50
Halifax, N. S	97	29.85	45.6	..	45.7	29.96	45.8	20.55
Grand Manan, N. B	49	29.91	44.6	...	44.6	29.96	44.6	20.54
Yarmouth, N. S	65	29.90	45.0	....	45.1	29.98	45.2	20.56
Charlottetown, P. E. I	38	29.89	43.4	....	43.4	29.93	43.4	20.50
Chatham, N. B	21	29.91	40.2	....	40.2	29.93	40.2	20.44
Father Point, Que	20	29.90	35.1	....	35.1	29.93	35.1	20.37
Quebec, Que	296	29.63	39.5	...	39.8	29.97	40.1	20.46
Montreal, Que	187	29.77	42.8	....	43.0	29.98	43.2	20.52
Bissett, Ont	557	29.40	34.7	....	39.2	30.02	39.7	20.49
Ottawa, Ont	294	29.64	43.0	....	43.3	29.96	43.6	20.52
Kingston, Ont	285	29.68	44.9	....	45.2	30.00	45.5	20.57
Toronto, Ont	350	29.63	47.3	....	47.7	30.01	48.0	20.61
White River, Ont	1,252	28.64	34.1	....	36.5	30.02	37.8	20.44
Port Stanley, Ont	592	29.38	46.7	...	47.3	30.02	47.9	20.62
Saugeen, Ont	656	29.29	45.0	....	45.7	30.02	46.4	20.59
Parry Sound, Ont	635	29.29	43.1	....	43.7	30.00	44.3	20.54
Port Arthur, Ont	644	29.27	37.8	....	37.8	29.99	38.4	20.44
Winnipeg, Man	760	29 17	36.9	....	37.7	30.02	38 5	20.47
Minnedosa, Man	1,690	28.15	36.5	....	39.0	30.00	40.7	20.48
Qu'Appelle, Assin	2,115	27.67	36.4	....	38.7	29.96	40.8	20.44
Medicine Hat, Assin	2,161	27.64	43.6	....	45.2	29.95	47.4	20.54
Swift Current, Assin	2,440	27.38	40.0	....	41.7	29.99	44.1	20.50
Calgary, Alberta	3,389	26.35	38.6	....	42.0	29.91	45.4	20.47
Edmonton, Alberta	2,158	27.58	37.8	....	40.9	29.90	43.1	20.44
Prince Albert, Sask	1,432	28.37	33.2	....	35.5	29.92	36.9	20.37
Battleford, Sask	1,620	28.20	34.9	....	36.7	29.98	38.3	20.42
Kamloops, B. C	1,198	28.74	48.3	....	47.0	30.02	48.2	20.61
Victoria, B. C	85	29.91	50.7	...	50.7	30.01	50.7	20.66
Barkerville, B. C	4,180	25.57	37.6	....	40.2	29.91	44.4	20.43
Hamilton, Bermuda	151	29.92	69.9	...	70.1	30.08	70.3	21.03

TABLE IV.—*Resultant winds from observations at* 8 *a. m. and* 8 *p. m., daily, during the year* 1900.

Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.
New England.	*Hours.*	*Hours.*	*Hours.*	*Hours.*	°	*Hours.*
Eastport, Me	232	176	117	342	n. 72 w.	23
Portland, Me	244	213	89	347	n. 83 w.	262
Northfield, Vt	252	482	44	107	s. 15 w.	238
Boston, Mass	212	191	113	354	s. 85 w.	24
Nantucket, Mass	246	222	138	315	n 84 w.	181
Block Island, R. I	192	207	159	362	s. 84 w.	20
New Haven, Conn	306	184	130	288	n. 36 w.	272
Middle Atlantic States.						
Albany, N. Y	242	285	69	237	n. 77 w.	175
Binghamton, N. Y †	156	79	29	177	n. 60 w.	161
New York, N. Y	238	200	158	304	n. 75 w.	14
Harrisburg, Pa †	114	71	77	160	n. 62 w.	47
Philadelphia, Pa	249	209	156	291	n. 41 w.	52
Atlantic City, N. J	226	218	146	308	s. 87 w.	170
Baltimore, Md	200	198	200	276	n. 89 w.	96
Washington, D. C	271	231	152	242	n. 66 w.	49
Lynchburg, Va	217	225	172	282	s. 86 w.	110
Norfolk, Va	196	202	225	176	s. 83 e.	49
Richmond, Va	243	296	121	198	s. 24 e.	58
South Atlantic States.						
Charlotte, N. C	227	279	229	184	s. 70 e.	149
Hatteras, N. C	258	238	174	241	n. 76 w.	82
Raleigh, N. C	241	240	127	270	n. 86 w.	140
Wilmington, N. C	230	216	176	239	n. 83 w.	8
Charleston, S. C	226	239	195	219	s. 62 w.	27
Augusta, Ga	203	237	189	250	n. 67 w.	8
Savannah, Ga	211	239	175	241	s. 67 w.	8
Jacksonville, Fla	212	228	289	181	s. 80 e.	112
Florida Peninsula.						
Jupiter, Fla	177	224	249	154	s. 63 e.	112
Key West, Fla	222	151	546	64	n. 82 e.	485
Tampa, Fla	277	149	290	180	n. 40 e.	170
Eastern Gulf States.						
Atlanta, Ga	296	224	210	9	n. 71 e.	21
Macon, Ga †	138	98	94	108	n. 19 w.	43
Pensacola, Fla †	173	78	139	73	n. 35 e.	12
Mobile, Ala	306	228	164	190	n. 21 w.	8
Montgomery, Ala	205	208	276	191	s. 87 e.	84
Meridian, Miss †	111	118	100	115	s. 63 w.	17
Vicksburg, Miss	200	280	291	125	s. 65 e.	19
New Orleans, La	225	261	178	160	s. 20 e.	38
Western Gulf States.						
Shreveport, La	171	309	240	132	s. 38 e.	178
Port Smith, Ark	186	157	376	118	n. 79 e.	163
Little Rock, Ark	235	262	217	208	s. 18 e.	28
Corpus Christi, Tex	182	305	357	88	s. 52 e.	340

TABLE IV.—*Resultant winds*—Continued.

Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.
Western Gulf States—Con'd.	*Hours.*	*Hours.*	*Hours.*	*Hours.*	°	*Hours.*
Fort Worth, Tex †	104	189	85	114	s. 21 w.	85
Galveston, Tex	160	305	304	136	s. 51 e.	220
Palestine, Tex	184	384	187	112	s. 22 e.	215
San Antonio, Tex	248	242	258	65	n. 87 e.	190
Ohio Valley and Tennessee.						
Chattanooga, Tenn	205	268	176	257	s. 53 w.	100
Knoxville, Tenn	276	206	180	255	n. 49 w.	11
Memphis, Tenn	215	287	220	166	s. 86 e.	9
Nashville, Tenn	223	253	189	237	s. 58 w.	57
Lexington, Ky	77	164	106	104	s. 1 e.	88
Louisville, Ky	232	287	137	220	s. 53 w.	100
Evansville, Ind †	109	138	113	82	s. 46 e.	42
Indianapolis, Ind	248	240	156	249	n. 84 w.	91
Cincinnati, Ohio	217	247	236	228	s. 15 e.	31
Columbus, Ohio	183	241	189	264	s. 53 w.	100
Pittsburg, Pa	270	190	135	309	n. 65 w.	19
Parkersburg, W. Va	219	279	133	235	s. 55 w.	122
Elkins, W. Va	247	210	95	289	n. 78 w.	194
Lower Lake Region.						
Buffalo, N. Y	156	242	135	340	s. 66 w.	22
Oswego, N. Y	151	212	190	260	s. 56 w.	11
Rochester, N. Y	166	265	120	277	s. 58 w.	189
Erie, Pa	162	151	120	530	n. 87 w.	210
Cleveland, Ohio	161	323	206	216	s. 32 w.	189
Sandusky, Ohio	144	258	195	293	s. 42 w.	149
Toledo, Ohio	169	244	179	299	s. 56 w.	144
Detroit, Mich	194	233	183	311	s. 77 w.	133
Upper Lake Region.						
Alpena, Mich	246	216	159	299	n. 78 w.	143
Escanaba, Mich	256	264	102	256	s. 86 w.	150
Grand Haven, Mich	224	219	212	225	n. 41 w.	20
Marquette, Mich	253	221	114	331	n. 76 w.	124
Port Huron, Mich	122	266	121	257	s. 45 w.	198
Sault Ste. Marie, Mich	163	197	265	268	s. 5 w.	341
Chicago, Ill	205	242	213	255	s. 49 w.	56
Milwaukee, Wis	220	196	165	222	n. 72 w.	63
Green Bay, Wis	217	276	141	220	s. 53 w.	100
Duluth, Minn	339	146	205	278	n. 30 w.	20
North Dakota.						
Moorhead, Minn	248	256	238	215	s. 83 e.	23
Bismarck, N. Dak	298	158	237	206	n. 12 e.	14
Williston, N. Dak	293	207	136	220	n. 42 w.	120
Upper Mississippi Valley.						
St. Paul, Minn	209	275	179	243	s. 41 w.	92
La Crosse, Wis †	107	172	63	85	s. 18 w.	63
Davenport, Iowa	173	209	218	290	s. 60 w.	81
Des Moines, Iowa	230	255	222	214	s. 18 e.	26
Dubuque, Iowa	190	262	189	256	s. 45 w.	94
Keokuk, Iowa	201	260	189	256	s. 53 w.	100
Cairo, Ill	234	300	188	163	s. 16 e.	73
Springfield, Ill	190	273	179	238	n. 37 w.	100
Hannibal, Mo †	93	131	101	124	s. 32 w.	44
St. Louis, Mo	222	275	171	186	s. 22 w.	54
Missouri Valley.						
Columbia, Mo *	103	125	120	99	s. 44 e.	30
Kansas City, Mo	233	282	233	159	s. 54 e.	100
Springfield, Mo	191	227	223	146	s. 63 e.	89
Lincoln, Nebr	221	307	207	126	n. 10 e.	110
Omaha, Nebr	229	165	267	157	n. 61 e.	125
Valentine, Nebr	244	223	134	250	n. 83 w.	161
Sioux City, Iowa †	113	148	105	91	s. 22 e.	38
Pierre, S. Dak	238	213	277	176	n. 79 w.	10
Huron, S. Dak	225	229	263	211	s. 85 e.	52
Yankton, S. Dak †	99	98	93	137	n. 89 w.	44
Northern Slope.						
Havre, Mont	208	169	173	369	n. 79 w.	200
Miles City, Mont	....	....	....	....	....	....
Helena, Mont	142	281	89	435	n. 81 w.	385
Kalispell, Mont	216	202	104	393	n. 88 w.	290
Rapid City, S. Dak	172	175	178	298	s 88 w.	120
Cheyenne, Wyo	281	190	83	342	n. 71 w.	275
Lander, Wyo	173	310	157	310	s. 47 w.	205
North Platte, Nebr	192	247	186	256	s. 51 w.	90
Middle Slope.						
Denver, Colo	204	319	147	209	s. 27 w.	134
Pueblo, Colo	268	143	239	266	n. 14 e.	124
Concordia, Kans	182	353	175	123	s. 16 e.	177
Dodge, Kans	242	294	221	142	s. 58 e.	94
Wichita, Kans	226	364	176	82	s. 33 e.	166
Oklahoma, Okla	205	363	189	85	s. 32 e.	189
Southern Slope.						
Abilene, Tex	183	167	277	129	s. 84 e.	139
Amarillo, Tex	180	374	152	181	s. 9 w.	19
Southern Plateau.						
El Paso, Tex	228	95	255	330	n. 27 w.	134
Santa Fe, N. Mex	223	255	300	114	s. 81 e.	191
Phoenix, Ariz	168	95	290	297	n. 6 w.	73
Yuma, Ariz	....	....	....	....	....	....
Independence, Cal	252	223	136	321	n. 81 w.	182
Middle Plateau.						
Carson City, Nev	189	225	115	351	s. 81 w.	243
Winnemucca, Nev	227	211	109	258	n. 68 w.	54
Cedar City, Utah	124	374	234	163	s. 16 e.	260
Salt Lake City, Utah	257	243	210	208	n. 8 e.	14
Grand Junction, Colo	123	209	284	207	s. 42 e.	120
Northern Plateau.						
Baker City, Oreg	196	380	139	150	s. 31 w.	180
Boise, Idaho	223	211	199	294	n. 77 w.	98
Pocatello, Idaho	130	351	115	252	s. 49 w.	185
Spokane, Wash	154	324	197	208	s. 3 w.	170
Walla Walla, Wash	96	444	113	241	s. 20 w.	373
North Pacific Coast Region.						
Neah Bay, Wash	62	208	241	331	s. 51 w.	18
Port Crescent, Wash *	16	77	130	205	s. 55 w.	104

TABLE IV.—*Resultant winds*—Continued.

Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.
North Pacific Coast Region—Con'd.	*Hours.*	*Hours.*	*Hours.*	*Hours.*	°	*Hours.*
Seattle, Wash.	178	290	231	171	s. 27 e.	134
Tacoma, Wash.	245	302	79	258	s. 65 w.	17
Portland, Oreg.	212	289	153	272	s. 56 w.	144
Roseburg, Oreg.	315	139	206	219	n. 3 w.	180
Middle Pacific Coast Region.						
Eureka, Cal.	274	205	158	289	n. 62 w.	148
Mount Tamalpais, Cal.	260	128	94	398	n. 77 w.	310
Red Bluff, Cal.	313	239	214	116	n. 55 e.	122
Sacramento, Cal.	176	469	78	182	s. 21 w.	310
San Francisco, Cal.	131	194	49	475	s. 82 w.	43
South Pacific Coast Region.						
Fresno, Cal.	487	81	100	392	n. 35 w.	500
Los Angeles, Cal.	175	168	132	379	n. 80 w.	470
San Diego, Cal.	315	159	118	335	n. 37 w.	200
San Luis Obispo, Cal.	287	123	39	343	n. 62 w.	340
West Indies.						
Basseterre, St. Kitts Island	149	45	614	8	n. 81 e.	590
Bridgetown, Barbados	142	84	628	2	n. 85 e.	580
Cienfuegos, Cuba						
Grand Turk, Turks Island, W. I.						
Havana, Cuba	186	90	526	39	n. 78 e.	500
Kingston, Jamaica						
Port of Spain, Trinidad	142	86	560	31	n. 83 e.	53
Puerto Principe, Cuba	319	72	471	43	n. 58 e.	51
Roseau, Dominica, W. I.	248	85	479	85	n. 68 e.	42
San Juan, Porto Rico	44	270	535	25	s. 49 e.	66
Santiago de Cuba, Cuba	535	77	151	37	n. 13 e.	47
Santo Domingo, S. Domingo, W. I.						
Willemstad, Curaçao	45	49	689	0	e.	590

* From observations at 8 p. m. only. † From observations at 8 a. m. only.

TABLE V.—*Total number of days with thunderstorms at selected stations*, 1900.

State and station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November	December.	Annual.
Alabama.													
Mobile	2	3	3	4	3	15	10	12	1	4	0	2	59
Montgomery	1	4	1	3	1	13	14	17	2	4	1	0	61
Scottsboro	1	2	1	10	0	22	18	18	2	4	3	0	81
Arizona.													
Defiance Fort	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagstaff	0	0	0	0	0	3	0	0	0	0	0	0	3
Phoenix	0	0	2	0	2	0	3	2	4	0	2	0	15
Winslow	0	0	0	0	0	0	0	0	0	0	0	0	0
Yuma	0	0	1	0	0	0	0	0	0	0	0	0	1
Arkansas.													
Fort Smith	2	2	1	7	9	6	8	6	7	2	2	1	53
Keesees Ferry	1	2	2	11	0	10	10	10	5	10	4	2	59
Little Rock	0	1	2	6	6	15	12	8	3	2	2	4	61
Pocahontas	0	1	2	8	10	12	7	4	4	0	1	2	51
California.													
Eureka	0	0	0	0	0	1	0	0	1	0	0	1	3
Fresno	0	0	0	0	0	0	0	0	0	0	0	0	0
Independence	0	0	0	0	0	2	0	2	2	0	0	0	6
Los Angeles	0	0	1	0	0	0	0	0	1	0	1	0	3
Mount Tamalpais	0	0	0	0	0	0	0	0	0	0	1	1	2
Red Bluff	0	2	1	0	0	1	0	1	1	0	1	0	7
Sacramento	0	0	0	0	2	1	0	0	1	0	1	0	5
San Diego	0	0	0	1	0	0	0	0	0	0	0	0	1
San Francisco	0	0	0	0	0	0	0	0	0	0	2	1	3
San Luis Obispo	0	0	1	1	0	1	0	0	0	0	0	0	3
Colorado.													
Denver	0	0	0	5	2	13	9	9	4	1	0	0	43
Durango	0	0	0	3	1	3	1	2	1	1	0	0	12
Fort Collins	0	0	0	0	0	6	0	0	0	0	0	0	6
Grand Junction	0	0	0	3	2	8	3	7	5	1	0	0	29
Pueblo	0	0	0	8	10	16	9	4	2	1	0	0	50
Connecticut.													
Hartford	0	2	0	1	2	3	4	1	4	1	2	0	20
New Haven	0	1	0	0	5	6	4	5	3	0	3	0	27
Dist. of Columbia.													
Washington	0	0	0	0	3	9	10	6	3	0	1	0	32
Florida.													
Jacksonville	1	2	3	11	8	17	12	16	7	6	1	1	85
Jupiter	0	0	3	3	6	7	3	4	3	4	0	1	33
Key West	0	1	1	3	3	1	3	11	3	2	1	0	29
Merritt Island	3	2	4	10	8	24	23	20	10	7	2	3	116
Myers	0	3	5	3	8	26	31	27	30	16	5	2	156
Pensacola	1	5	3	3	2	4	4	7	0	2	0	0	31
Tampa	1	2	3	5	5	15	22	22	5	3	1	1	85
Georgia.													
Atlanta	0	1	1	5	5	15	4	5	0	1	0	0	37
Augusta	1	1	0	6	4	10	5	6	1	0	0	0	34
Clayton	1	3	0	3	1	4	5	3	1	2	0	0	23
Macon	1	2	2	7	4	20	10	12	0	2	1	1	62
Poulan	1	1	2	1	2	6	3	8	0	1	0	2	27
Savannah	2	0	0	5	6	13	17	12	7	3	0	0	65
Idaho.													
Boise	0	0	1	1	2	3	1	3	2	0	0	0	13
Downey	0	0	0	4	6	2	1	0	0	0	1	0	14
Murray	0	0	0	1	2	3	1	6	1	0	0	0	14
Ola	0	0	1	1	4	2	4	8	5	2	0	0	27
Pocatello	0	1	0	1	1	2	2	1	0	1	0	0	9

TABLE V.—*Total number of days with thunderstorms, etc.*—Continued.

State and station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Illinois.													
Cairo	0	0	1	5	10	18	12	4	8	2	5	1	66
Chicago	0	1	0	1	7	7	7	12	5	2	2	0	44
Cisne	0	1	1	0	4	4	3	5	2	0	1	0	21
Peoria	0	0	1	0	5	2	2	5	2	0	1	0	18
Rantoul	0	2	1	2	8	12	5	10	5	2	4	0	51
Springfield	0	0	0	0	8	9	7	8	4	2	3	1	42
Winnebago	0	0	0	1	7	3	9	10	2	2	0	0	34
Indiana.													
Butlerville	0	0	0	0	5	9	10	6	1	0	1	0	32
Cambridge City	0	0	0	1	6	9	9	5	1	0	1	0	32
Evansville	0	1	1	0	6	9	3	3	3	0	1	1	28
Huntington	0	0	0	1	0	0	5	7	2	2	1	0	18
Indianapolis	0	1	0	2	8	7	6	8	3	0	1	0	36
Worthington	0	1	0	1	6	5	9	4	4	0	3	0	33
Iowa.													
Davenport	0	0	0	2	7	4	8	10	4	2	0	0	37
Des Moines	0	0	2	3	9	9	14	9	7	3	0	0	56
Dubuque	0	0	0	1	7	3	10	9	5	4	0	0	39
Keokuk	0	0	1	2	7	8	4	9	5	3	2	0	41
Sioux City	0	0	0	4	8	6	9	8	5	2	0	0	42
Kansas.													
Concordia	0	0	3	6	5	5	7	6	3	6	0	0	41
Dodge	0	0	1	5	4	7	7	7	3	3	0	0	37
Topeka	0	1	1	4	4	9	8	7	6	3	1	0	44
Wichita	0	0	1	8	6	9	11	4	6	4	0	0	49
Kentucky													
Lexington	0	2	0	0	4	7	11	14	2	1	3	0	44
Louisville	0	1	0	1	5	7	5	12	2	1	1	0	35
Louisiana.													
Grand Coteau	2	3	2	6	1	3	3	3	1	1	0	1	26
New Orleans	3	5	3	5	5	13	12	7	5	2	0	1	61
Shreveport	2	3	4	6	6	14	13	5	4	3	2	1	63
Maine.													
Eastport	0	0	0	0	2	5	2	1	1	0	0	0	11
Farmington	0	1	0	1	4	3	2	0	1	1	1	0	14
Orono	0	0	0	1	1	0	0	0	0	0	0	0	2
Portland	0	1	1	0	2	1	3	3	2	1	2	0	16
Maryland.													
Baltimore	0	2	0	0	1	6	8	5	3	0	2	0	27
Frostburg	0	0	0	1	2	2	1	1	0	0	1	0	8
Princess Anne	0	0	0	1	3	1	4	5	2	2	0	0	18
Massachusetts.													
Boston	0	1	0	0	3	3	3	4	1	0	2	0	17
Monson	0	0	0	0	0	1	5	2	3	0	1	0	12
Nantucket	0	1	0	0	2	2	5	5	1	0	1	0	17
New Bedford	0	0	0	0	0	0	2	3	5	0	0	1	11
Pittsfield	0	0	0	0	0	2	2	0	0	0	0	0	4
Michigan.													
Alpena	0	0	0	0	2	6	9	7	5	4	0	0	33
Detroit	0	0	0	0	0	8	7	8	7	0	1	1	32
Escanaba	0	0	0	0	0	2	3	6	7	4	3	0	25
Grand Haven	0	0	0	0	0	4	3	6	9	1	3	1	27
Lansing	1	0	0	0	0	7	5	11	8	2	1	2	37
Marquette	0	0	0	0	0	4	3	5	6	4	3	0	25
Port Huron	0	0	0	0	0	9	6	9	10	4	0	0	38
Sault Ste Marie	0	0	0	0	2	2	3	7	5	2	0	0	21
Minnesota.													
Duluth	0	0	0	0	3	2	8	13	4	4	0	0	34
Minneapolis	0	0	0	0	2	2	6	9	10	7	7	0	43
Moorhead	0	0	0	0	2	3	8	6	14	8	3	0	44
Rolling Green	0	0	0	0	2	2	2	2	5	1	4	0	18
St. Cloud	0	0	0	0	1	0	4	4	10	3	0	0	22
St. Paul	0	0	0	0	0	2	6	8	12	9	5	0	42
Mississippi.													
Biloxi	1	5	2	5	3	12	9	8	7	5	0	2	59
Meridian	1	3	1	8	3	10	12	8	0	3	1	0	50
Vicksburg	1	2	4	10	7	16	15	5	3	3	1	1	68
Watervalley	0	5	1	7	5	12	17	5	5	5	1	1	64
Missouri.													
Columbia	0	1	0	2	10	13	7	10	5	4	2	1	55
Hannibal	0	0	0	1	7	9	3	10	5	2	1	1	39
Kansas City	0	1	1	4	6	13	8	7	5	2	3	0	50
St. Louis	0	1	2	1	7	8	5	5	7	2	1	1	40
Springfield	0	2	0	8	9	11	6	9	6	3	2	0	56
Montana.													
Havre	0	0	0	0	7	7	2	8	1	0	0	0	25
Helena	0	0	0	1	9	5	2	9	3	1	0	0	30
Kalispell	0	0	0	1	1	2	3	2	2	0	0	0	11
Kipp	0	0	0	4	7	8	9	9	0	0	0	0	37
Miles City	0	0	0	0	0	0	4	4	2	0	0	0	10
Ovando	0	0	0	0	2	4	5	1	2	2	0	0	16
Parrot	0	0	0	0	1	3	6	7	1	0	0	0	18
Nebraska.													
Lincoln	0	0	2	8	9	9	11	10	4	6	0	0	59
North Platte	0	0	1	3	3	9	9	7	0	0	0	0	32
Omaha	0	0	1	7	4	5	7	9	3	6	0	0	42
Valentine	0	0	1	2	4	6	10	7	4	0	0	0	34
Nevada.													
Carson City	0	0	0	0	0	2	5	0	0	0	0	0	7
Winnemucca	0	0	0	1	1	4	1	2	3	0	0	0	12
Tybo	0	0	0	2	3	5	7	3	4	1	1	0	26
New Hampshire.													
Bethlehem	0	0	0	0	1	1	5	1	2	0	1	0	11
Nashua	0	1	0	0	2	3	2	3	3	1	2	0	17
New Jersey.													
Atlantic City	0	2	0	0	1	1	7	8	3	1	0	0	23
Cape May	0	0	0	1	3	1	7	6	2	1	0	0	21
Somerville	0	0	0	1	4	6	7	9	2	1	1	0	31
New Mexico.													
Lyons Ranch	1	0	2	2	2	5	10	7	12	1	0	0	42
Santa Fe	0	0	0	2	7	15	9	8	7	4	0	0	52
Whiteoaks	0	0	0	3	4	7	9	3	1	0	0	0	27

TABLE V.—*Total number of days with thunderstorms, etc.*—Continued.

State and station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
New York.													
Albany	0	0	0	1	2	4	8	7	2	2	2	0	28
Binghamton	0	1	0	1	4	7	10	4	2	2	0	0	31
Buffalo	0	0	0	1	5	1	8	5	3	0	0	0	23
New York	0	1	0	0	6	7	8	7	3	2	4	0	38
Oswego	0	0	0	0	4	1	8	7	5	1	2	0	28
Rochester	0	0	0	2	3	3	12	5	4	1	0	0	30
South Canisteo	0	0	0	1	7	5	9	5	1	1	0	0	29
North Carolina.													
Charlotte	0	1	1	2	5	10	11	8	1	2	0	0	40
Hatteras	0	0	0	1	3	3	5	5	2	0	3	0	22
Linville	0	1	0	2	1	6	8	8	3	0	0	0	29
Raleigh	0	1	2	2	3	11	9	9	0	1	1	0	39
Wilmington	3	0	2	2	4	6	6	5	3	0	1	1	33
North Dakota.													
Bismarck	0	0	0	1	3	6	5	10	7	0	0	0	32
Dickinson	0	0	0	1	1	0	3	0	0	0	0	0	5
Williston	2	1	0	0	0	0	0	1	1	0	0	0	5
Ohio.													
Cincinnati	0	0	0	1	5	4	10	15	1	1	1	0	38
Cleveland	0	0	0	1	4	5	10	8	3	1	1	0	33
Columbus	0	0	0	3	4	7	10	8	1	1	1	0	35
Sandusky	0	0	0	1	6	7	9	8	2	0	0	0	33
Toledo	0	0	0	2	5	4	8	6	1	0	1	0	27
Oklahoma.													
Ara ho	0	0	0	3	4	6	0	1	1	0	0	0	15
Oklahoma	0	2	1	5	6	7	4	3	8	5	2	0	43
Oregon.													
Astoria	0	1	1	0	1	0	0	0	1	0	0	0	4
Baker City	0	0	0	0	2	4	0	5	2	1	0	0	14
Portland	0	0	0	0	1	0	0	1	1	0	0	0	3
Roseburg	0	0	0	0	2	0	0	0	0	0	0	0	2
Pennsylvania.													
Dushore	0	1	0	1	6	10	7	6	1	1	0	0	33
Erie	0	0	0	1	2	7	10	5	1	1	1	0	28
Harrisburg	0	0	0	1	2	7	10	5	1	0	0	0	26
Philadelphia	0	0	0	0	3	5	10	9	1	2	2	0	32
Pittsburg	0	0	0	1	2	14	9	8	2	0	2	0	37
Rhode Island.													
Block Island	0	0	0	0	3	6	3	4	3	0	2	1	22
Narragansett	0	0	0	0	3	4	4	3	0	1	1	0	16
South Carolina.													
Charleston	0	3	0	6	2	11	11	17	4	3	1	1	59
Columbia	0	2	0	3	2	12	9	9	2	4	0	1	44
South Dakota.													
Huron	0	0	0	3	6	10	10	16	7	1	0	0	53
Pierre	0	0	0	4	5	7	10	11	4	0	0	0	41
Rapid City	0	0	0	3	6	7	8	12	5	0	0	0	41
Yankton	0	0	1	4	9	9	10	9	1	0	0	0	43
Tennessee.													
Chattanooga	0	1	1	8	5	16	14	16	1	4	0	0	66
Knoxville	1	1	1	5	1	13	7	8	3	0	0	0	40
Memphis	0	1	3	5	4	6	6	5	9	2	1	2	44
Nashville	1	2	0	2	4	7	8	5	1	0	3	0	33
Texas.													
Abilene	0	1	1	9	9	3	7	8	2	5	0	0	45
Amarillo	0	0	0	7	10	12	10	7	11	7	0	0	64
Corpus Christi	0	1	5	4	4	5	2	8	2	2	0	0	33
El Paso	0	0	0	0	3	3	7	4	5	2	0	0	24
Fort Worth	0	0	0	0	1	22	15	15	17	3	0	0	73
Galveston	5	3	5	7	6	6	13	10	2	5	0	0	82
Palestine	2	1	3	3	4	6	8	1	3	1	1	0	33
San Antonio	2	1	3	4	7	3	3	8	1	1	1	0	34
Utah.													
Cedar City	0	0	0	0	0	2	0	3	0	0	0	0	5
Salt Lake City	0	0	0	3	1	3	3	1	1	2	1	0	15
Tropic	0	0	0	0	0	1	0	3	2	0	0	0	6
Vermont.													
Northfield	0	0	0	0	3	3	6	7	5	3	0	0	27
Vernon	0	2	0	0	4	6	14	7	5	2	3	0	43
Virginia.													
Burkes Garden	0	0	1	2	3	4	4	3	0	1	1	0	19
Cape Henry	0	0	1	4	4	5	10	8	4	1	1	0	38
Dale Enterprise	1	0	0	1	4	13	7	6	2	1	1	0	36
Lynchburg	0	1	0	0	2	7	9	5	3	0	1	0	28
Norfolk	0	0	0	2	3	4	8	9	1	1	0	0	28
Richmond	0	1	0	1	4	5	7	8	3	2	1	0	32
Washington.													
Neah Bay	1	0	0	2	1	0	0	1	1	2	0	0	8
Port Crescent	0	0	0	0	0	0	0	0	1	0	0	0	1
Seattle	0	1	0	1	0	1	1	1	0	0	0	0	5
Spokane	0	0	0	0	5	3	3	2	3	1	0	0	17
Tacoma	0	0	0	2	1	1	1	0	1	0	0	0	6
Walla Walla	0	0	0	0	2	2	2	2	1	0	0	0	9
West Virginia.													
Elkins	0	0	0	2	4	12	11	8	3	2	0	0	42
Parkersburg	0	0	0	3	3	12	9	9	2	1	1	0	40
Upper Tract	2	0	0	2	3	15	15	11	6	1	0	0	55
Wisconsin.													
Green Bay	0	0	0	0	7	4	9	3	4	5	0	0	32
La Crosse	0	0	0	0	5	5	13	8	6	6	0	0	43
Milwaukee	0	0	0	1	5	4	9	11	2	4	0	0	36
Wyoming.													
Cheyenne	0	0	1	7	8	11	11	8	5	1	0	0	52
Fourbear	0	0	0	2	0	5	8	1	0	0	0	0	14
Lander	0	0	0	2	2	6	1	1	1	0	0	0	13

TABLE VI.—*Number of days on which thunderstorms were reported*, 1900.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Alabama	5	9	9	20	15	30	29	29	8	10	5	4	173
Arizona	4	1	10	11	8	9	14	12	12	7	4	1	93
Arkansas	5	10	9	20	21	25	28	20	23	10	10	8	189
California	2	1	9	15	6	11	9	14	10	7	6	3	93
Colorado	0	0	8	23	25	29	30	23	20	10	1	0	169
Connecticut	0	3	0	3	12	9	11	15	10	2	6	0	71
Delaware	0	0	0	1	4	9	10	10	3	2	1	0	40
Dist. of Columbia	0	0	0	0	3	9	10	6	3	0	1	0	32
Florida	5	11	14	20	15	28	31	31	29	16	7	8	215
Georgia	5	10	7	18	13	28	26	27	11	14	3	4	166
Idaho	0	1	1	14	18	15	13	12	10	7	2	1	94
Illinois	1	6	8	10	21	24	25	25	21	8	9	3	161
Indiana	0	2	2	7	12	21	21	23	10	9	8	1	116
Indian Territory	0	3	3	17	18	11	12	12	10	10	1	3	100
Iowa	0	1	7	11	21	18	22	21	21	14	3	0	139
Kansas	1	2	12	26	25	27	20	21	22	8	5	2	171
Kentucky	1	2	6	13	17	25	26	21	10	6	7	2	136
Louisiana	9	20	12	21	20	30	31	30	19	14	6	9	221
Maine	0	2	1	6	6	5	14	8	5	3	5	0	55
Maryland	2	3	0	8	12	23	22	22	15	6	6	1	120
Massachusetts	0	3	0	1	13	11	17	21	11	3	6	0	86
Michigan	1	2	1	6	20	14	28	26	17	18	7	2	142
Minnesota	0	0	0	8	14	20	24	28	20	14	0	0	128
Mississippi	4	10	10	18	18	30	29	26	19	13	6	5	188
Missouri	3	7	11	21	23	26	25	25	25	11	13	2	192
Montana	0	1	0	20	24	20	18	22	8	2	0	2	117
Nebraska	0	0	6	17	26	26	27	27	24	14	1	2	170
Nevada	0	0	3	7	9	12	15	8	10	2	1	0	67
New Hampshire	0	5	0	0	8	13	17	16	10	4	5	0	78
New Jersey	0	3	1	2	14	15	23	18	9	5	4	2	96
New Mexico	1	4	6	12	20	25	24	19	15	8	0	0	134
New York	2	4	0	6	18	16	28	27	13	12	10	3	139
North Carolina	6	4	5	18	13	27	30	27	11	2	9	2	154
North Dakota	0	0	0	5	10	18	14	26	17	4	0	0	94
Ohio	0	1	0	8	14	19	25	24	11	13	7	0	122
Oklahoma	0	6	2	17	13	15	11	8	13	10	3	0	98
Oregon	2	2	4	3	12	12	4	14	10	10	1	7	81
Pennsylvania	0	3	0	4	20	25	24	25	7	7	8	0	123
Rhode Island	0	1	0	0	7	3	4	2	4	1	3	0	25
South Carolina	5	7	8	20	13	27	30	27	10	12	3	5	167
South Dakota	0	0	3	10	18	18	20	23	17	9	0	0	118
Tennessee	4	7	7	19	17	19	10	25	14	9	5	3	129
Texas	8	9	17	23	26	25	30	26	18	13	7	6	208
Utah	0	2	2	9	12	17	10	12	11	12	4	0	91
Vermont	0	2	0	1	12	8	18	14	10	3	5	0	73
Virginia	3	5	4	9	13	21	18	25	11	6	7	1	123
Washington	1	1	4	3	19	12	8	11	6	9	1	4	79
West Virginia	0	2	0	5	9	25	18	19	11	3	5	0	97
Wisconsin	0	0	1	4	17	17	25	26	18	19	2	0	129
Wyoming	0	0	2	16	16	20	22	19	18	4	0	0	117
Total	80	178	215	556	760	942	999	998	670	415	219	96	6,128

TABLE VII.—*Number of days on which auroras were reported*, 1900.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Alabama	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	0	0	0	0	0	0	0	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0	0	0	0	0	0	0	0
California	0	0	0	0	0	0	0	0	0	0	0	0	0
Colorado	2	2	0	0	0	0	1	0	0	0	3	1	9
Connecticut	0	0	0	1	0	0	1	0	0	0	0	0	2
Delaware	0	0	0	0	0	0	0	0	0	0	0	0	0
Dist. of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0	0	0	0	0	0	0
Idaho	1	0	0	0	0	0	1	0	0	0	0	0	2
Illinois	2	3	1	1	0	4	1	0	0	3	0	0	15
Indiana	0	1	1	0	0	0	4	0	0	0	0	2	8
Indian Territory	0	0	0	0	0	0	0	0	0	0	0	0	0
Iowa	2	1	0	2	2	0	0	0	0	0	0	1	8
Kansas	1	1	2	0	0	0	0	0	0	0	0	0	4
Kentucky	0	0	1	0	0	0	0	0	0	0	0	0	1
Louisiana	0	0	0	0	0	0	0	0	0	0	0	0	0
Maine	0	0	4	1	0	0	1	0	0	0	0	0	6
Maryland	0	2	1	2	0	0	0	0	0	0	1	0	6
Massachusetts	0	0	3	1	0	0	0	0	0	0	0	0	4
Michigan	4	1	5	3	2	2	0	0	0	0	0	0	17
Minnesota	6	0	3	2	2	1	0	0	0	1	2	2	19
Mississippi	0	0	0	0	0	0	0	0	0	0	0	0	0
Missouri	0	1	0	0	0	0	0	0	0	0	1	0	2
Montana	8	3	4	1	2	0	0	0	0	1	1	1	21
Nebraska	0	0	0	1	0	0	0	1	0	1	3	1	7
Nevada	0	0	0	0	0	0	0	1	0	0	1	4	6
New Hampshire	0	0	5	3	0	0	0	0	0	0	0	0	8
New Jersey	1	0	0	1	0	0	0	0	0	0	0	0	2
New Mexico	0	0	0	1	0	0	0	1	0	0	0	0	2
New York	0	1	5	1	0	0	0	0	1	1	0	1	10
North Carolina	0	0	0	0	0	0	0	0	0	0	0	1	1
North Dakota	6	2	3	1	3	3	1	0	2	2	0	1	24
Ohio	0	3	0	2	0	0	0	0	0	0	0	5	10
Oklahoma	0	0	0	0	0	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	0	2	2	1	0	0	1	0	0	0	0	0	6

TABLE VII.—*Number of days on which auroras were reported*, 1900—Con.

States.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	4	1	2	2	5	0	0	0	1	0	1	3	19
Tennessee	0	0	0	0	0	0	0	0	0	0	0	0	0
Texas	0	0	0	0	0	0	0	0	0	0	0	0	0
Utah	1	1	0	0	0	0	0	0	0	1	0	0	3
Vermont	0	0	0	2	0	0	0	0	0	0	0	0	2
Virginia	0	0	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	2	4	0	0	0	0	0	0	0	4	10
West Virginia	0	0	0	0	0	0	0	0	0	0	3	0	3
Wisconsin	3	0	1	3	0	0	0	0	0	0	0	0	7
Wyoming	1	0	0	0	0	0	0	0	0	1	0	1	3
Total	42	25	45	36	16	10	11	3	4	10	16	29	247

TABLE VIII.—*Heights of rivers above zeros of gages*, 1900.

Stations.	Highest water.		Lowest water.		Mean stage.	Annual range.
	Stage.	Date.	Stage.	Date.		
Mississippi River.	*Feet.*		*Feet.*		*Feet.*	*Feet.*
St. Paul, Minn	6.6	Oct. 7	0.7	July 2	3.5	5.9
Reads Landing, Minn	8.5	Oct. 8, 9	— 1.0	Feb. 24	2.4	9.5
La Crosse, Wis	11.1	Oct. 11	1.2	July 3	5.2	9.9
Prairie du Chien, Wis	14.6	Oct. 15	1.2	July 2, 3	5.8	13.4
Dubuque, Iowa	14.6	Oct. 17	1.4	{June 30–July 2, July 5, 6}	5.6	13.2
Leclaire, Iowa	9.0	Oct. 20	0.0	Dec. 18	3.4	9.0
Davenport, Iowa	12.8	Mar. 14	0.9	Dec. 18	4.6	11.9
Muscatine, Iowa	12.5	Oct. 21, 22	1.8	July 2; Dec. 19	5.6	10.7
Galland, Iowa	5.9	Oct. 24, 25	0.5	Jan. 15	2.9	5.4
Keokuk, Iowa	16.0	Mar. 12	— 0.5	Jan. 29	4.6	16.5
Hannibal, Mo	13.0	Mar. 15	— 0.3	Jan. 31	5.6	13.3
Grafton, Ill	17.3	Mar. 16	1.0	Feb. 3	7.7	16.3
St. Louis, Mo	23.4	Mar. 16	— 2.6	Jan. 2	10.4	26.0
Chester, Ill	19.4	Mar. 16	— 4.1	Jan. 3	8.0	23.5
Memphis, Tenn	29.5	Mar. 19, 20	1.9	Sept. 25	12.3	27.6
Helena, Ark	38.1	Mar. 21, 22	4.8	Sept. 25, 26	18.6	33.3
Arkansas City, Ark	39.3	Mar. 25	5.0	Sept 25, 26	20.5	34.3
Greenville, Miss	33.7	Mar. 25	4.4	Sept. 27	17.0	29.3
Vicksburg, Miss	38.0	Mar. 27	2.4	Sept. 28	18.9	35.6
New Orleans, La	14.0	Mar. 30	3.0	Jan. 22	7.4	11.0
Missouri River.						
Bismarck, N. Dak	12.8	Apr. 3	1.0	{Sept. 5, Oct. 2–7, 13, 14}	3.7	11.8
Pierre, S. Dak	8.8	June 5	1.5	Nov. 20	4.3	7.3
Sioux City, Iowa	12.4	Apr. 8	4.2	Nov. 20	7.4	8.2
Omaha, Nebr	11.7	Apr. 9	2.6	Dec. 27, 28	7.5	9.1
St. Joseph, Mo.	8.2	June 19	— 2.7	Feb. 2	2.8	10.9
Kansas City, Mo	17.8	June 20	3.7	Feb. 2	9.3	14.1
Booneville, Mo	15.8	Mar. 9	3.3	Jan. 12	8.5	12.5
Hermann, Mo	16.2	Mar. 12, 13	1.9	Feb. 6, 7	7.8	14.3
Illinois River.						
Peoria, Ill	19.9	Mar. 16, 17	4.9	Jan. 9	9.0	15.0
Youghiogheny River.						
Confluence, Pa	10.3	Nov. 26	— 0.2	Sept. 20–27	1.9	10.5
West Newton, Pa	14.7	Nov. 26	— 0.1	Sept. 12–29	1.7	14.8
Allegheny River.						
Warren, Pa	9.5	Nov. 26	— 0.4	Oct. 4–9	1.8	9.9
Oil City, Pa	10.0	Nov. 27	— 0.1	Sept. 29 Oct. 8	2.2	10.1
Parker, Pa	20.0	Jan. 12	— 0.4	Sept. 29	2.6	20.4
Monongahela River.						
Weston, W. Va	12.3	Nov. 26	— 2.0	Sept. 11–16	0.0	14.3
Fairmont, W. Va	23.9	Nov. 26	— 0.7	Oct. 1–14	1.7	24.6
Greensboro, Pa	27.4	Nov. 26	5.7	Oct. 10–13	8.1	21.7
Lock No. 4, Pa	33.8	Nov. 27	3.5	Oct. 5	8.5	30.3
Conemaugh River.						
Johnstown, Pa	10.0	Nov. 26	0.3	Oct. 2–5	2.0	9.7
Red Bank Creek.						
Brookville, Pa	6.2	Nov. 26	— 0.5	Aug. 11–21	1.2	6.7
Beaver River.						
Ellwood Junction, Pa	9.6	Mar. 7	0.1	Oct. 6–17	2.5	9.5
Great Kanawha River.						
Charleston, W. Va	31.0	Nov. 27	1.9	Jan. 3	6.9	29.1
New River.						
Hinton, W. Va	11.5	Nov. 27	0.8	Sept. 11–15	2.5	10.7
Cheat River.						
Rowlesburg, W. Va	11.0	Nov. 26	— 1.2	Sept. 22	3.0	12.2
Ohio River.						
Pittsburg, Pa	27.7	Nov. 27	1.5	May 10	6.8	26.2
Davis Island Dam, Pa	25.6	Nov. 27	1.1	Sept. 19–21	5.6	24.5
Wheeling, W. Va	34.3	Nov. 28	0.3	{Sept. 23–26, 28, 29, Oct. 2, 3}	7.0	34.0
Parkersburg, W. Va	30.0	Nov. 29	0.8	Oct. 6	8.1	29.2
Point Pleasant, W. Va	34.6	Nov. 29	1.0	Oct. 4–8	8.7	33.6
Huntington, W. Va	37.7	Nov. 29	2.0	Oct. 7, 8	12.0	35.7
Catlettsburg, Ky	38.7	Nov. 29	1.2	Sept. 16	11.1	37.5
Portsmouth, Ohio	38.9	Nov. 30	2.0	Oct. 5, 8, 18, 19	12.2	36.9
Cincinnati, Ohio	40.0	Dec. 1	3.1	Oct. 21	14.0	36.9
Madison, Ind	34.1	Dec. 1	3.1	Oct. 20–23	12.7	31.0
Louisville, Ky	15.4	Dec. 1	2.0	Oct. 19–24	6.5	13.4
Evansville, Ind	33.6	Dec. 3	1.0	Oct. 27	11.8	32.6
Paducah, Ky	30.9	Mar. 15, 16	1.6	{Sept. 19, 20 Oct. 6}	2.8	29.3
Cairo, Ill	39.2	Mar. 17	5.8	Sept. 21, 22	19.2	33.4

Heights of rivers above zeros of gages, 1900—Continued.

Stations.	Highest water.		Lowest water.		Mean stage.	Annual range.
	Stage.	Date.	Stage.	Date.		
Muskingum River.	*Feet.*		*Feet.*		*Feet.*	*Feet.*
Zanesville, Ohio	18.8	Mar. 7	5.8	{July 2–6; Aug. 8; Sept. 19, 20, 23–27}	7.9	13.0
Scioto River.						
Columbus, Ohio	10.0	Mar. 7	1.6	Jan. 11	2.8	8.4
Miami River.						
Dayton, Ohio	8.6	Mar. 7	0.6	{Sept. 15, 16, 22, 26, 27.}	1.7	8.0
Wabash River.						
Mt. Carmel, Ill	19.0	Mar. 14, 15	1.2	Oct. 30–Nov 1	5.6	17.8
Licking River.						
Falmouth, Ky	14.9	Feb. 9	0.3	{Oct. 31–Nov. 10; Nov. 19}	2.8	14.6
Clinch River.						
Speer's Ferry, Va	14.0	Mar. 21	—0.8	Sept. 13	0.8	14.8
Clinton, Tenn	23.3	Nov. 28	2.0	Sept. 11, 12	5.6	21.3
Tennessee River.						
Knoxville, Tenn	13.2	Mar. 22	0.0	Sept. 13, Oct. 23	2.6	13.2
Kingston, Tenn	15.0	Feb. 14	0.7	Sept. 22	3.3	14.3
Chattanooga, Tenn	24.3	Feb. 15	1.0	Sept. 13	5.5	23.3
Bridgeport, Ala	18.2	Feb. 16	0.2	Sept. 13, 14	3.9	18.0
Florence, Ala	19.2	Apr. 19, 20	0.3	Sept. 13–15	4.7	18.9
Riverton, Ala	31.4	Apr. 21	—1.3	Sept. 15, 16	6.3	32.7
Johnsonville, Tenn	29.1	Apr. 23	0.6	Sept. 17, 18	8.2	28.5
Cumberland River.						
Burnside, Ky	46.1	Nov. 26	—0.2	{Sept. 13 Oct 10–27}	4.7	46.3
Carthage, Tenn	38.1	Nov. 29	0.2	Sept. 13	5.9	37.9
Nashville, Tenn	33.4	Dec. 1	0.9	Nov. 17, 18	8.7	32.5
Arkansas River.						
Wichita, Kans	7.4	May 28	1.2	Aug. 27	2.8	6.2
Webbs Falls, Ind. T	13.3	Oct. 8	1.9	Feb. 7, 18, 19	4.3	11.4
Fort Smith, Ark	13.8	Oct. 3	1.6	Aug. 23, 24	5.4	12.2
Dardanelle, Ark	13.8	Oct 5	0.8	Sept. 17–19	5.3	13.0
Little Rock, Ark	13.6	Oct. 6	1.8	Sept. 18, 19	6.8	11.8
White River.						
Newport, Ark	21.3	Nov. 27	0.7	Aug. 20–26	6.1	20.6
Yazoo River.						
Yazoo City, Miss	23.0	Apr. 30	—0.7	Oct. 11, 12	10.8	23.7
Red River.						
Arthur City, Tex	18.0	{May 3, Oct. 2 Nov. 2}	4.8	Apr. 9	8.2	13.2
Fulton, Ark	23.0	Nov. 4	3.8	Sept. 10	10.1	19.2
Shreveport, La	15.2	May 8	0.0	Sept. 15	6.8	15.2
Alexandria, La	19.8	Apr. 25	—1.2	Sept. 30	6.7	21.0
Ouachita River.						
Camden, Ark	26.2	Mar. 4	3.0	Aug. 26–28	10.3	23.2
Monroe, La	31.0	May 2, 3	0.5	Sept. 22–24	11.8	30.5
Atchafalaya River.						
Melville, La	30.5	{Mar. 28–31 May 1}	5.7	Sept. 29	19.9	24.8
Susquehanna River.						
Wilkesbarre, Pa	23.6	Nov. 28	—3.1	Sept. 24–27	2.5	26.7
Harrisburg, Pa	13.4	Mar. 2	0.0	{Sept. 24–Oct. 8. Oct. 9–12}	2.9	13.4
W. Br. of Susquehanna.						
Williamsport, Pa	17.0	Nov. 27	0.1	{Aug. 12, 13, 15, 16. Sept. 16, 17 Sept. 23–Oct. 3}	2.7	16.9
Juniata River.						
Huntingdon, Pa	8.5	Nov. 26	2.9	June 27–Nov. 23	3.5	5.6
Potomac River.						
Harpers Ferry, W. Va	8.5	{Mar. 22 June 19}	0.0	{Sept. 26–Oct. 3. Oct. 13, 14}	2.0	8.5
James River.						
Lynchburg, Va	15.4	Nov. 27	—0.4	Sept. 11–15	1.5	15.8
Richmond, Va	11.4	Mar. 2	—2.0	Jan. 10, 11	0.0	13.4
Roanoke River.						
Weldon, N. C	35.5	Apr. 21	6.8	Jan. 2	10.4	28.7
Cape Fear River.						
Fayetteville, N C	44.0	Apr. 21, 22	0.3	Sept. 13	6.8	43.7
Pedee River.						
Cheraw, S. C	32.1	Apr. 21	0.4	Sept. 13–15	4.9	31.7
Black River.						
Kingstree, S. C	11.9	Apr. 26	—0.4	Sept. 14 Oct. 6	3.8	12.3
Lynch Creek.						
Effingham, S. C	16.6	Apr. 25	1.4	Sept. 14	5.5	15.2
Santee River.						
St. Stephens, S. C	15.5	Apr. 29	—1.1	Sept. 15, 16	5.6	16.6
Congaree River.						
Columbia, S. C	22.0	Apr. 23	—0.3	Oct. 3, 21	1.9	22.3
Wateree River.						
Camden, S. C	28.4	Apr. 23	1.4	Oct. 2	7.8	27.0
Waccamaw River.						
Conway, S. C	6.9	May 4	0.4	Nov. 21, 22	3.1	6.5
Savannah River.						
Calhoun Falls, S. C	19.4	Feb. 14	1.9	Aug. 24	3.5	17.5
Augusta, Ga	32.7	Feb. 15	5.3	Sept. 14	10.0	27.4
Broad River.						
Carlton, Ga	22.2	Feb. 13	2.0	Sept. 12, 13	3.4	20.2
Flint River.						
Albany, Ga	29.0	Feb. 18, 19	0.8	{Aug. 9, 12–14, 16, 27, 28.}	5.5	28.2
Chattahoochee River.						
Westpoint, Ga	19.5	Feb. 14	2.2	Sept. 13	4.6	17.3
Ocmulgee River.						
Macon, Ga	21.7	Feb. 14	1.2	Jan. 3–5	5.2	20.5
Oconee River.						
Dublin, Ga	24.9	Feb. 17	—0.3	Oct. 2, 3	4.8	25.2
Coosa River.						
Rome, Ga	27.2	Feb. 14	0.8	Sept. 10–14	4.6	26.4
Gadsden, Ala	22.5	Apr. 19	0.0	Sept. 13, 14	5.5	22.5
Alabama River.						
Montgomery, Ala	48.6	Feb. 15	1.0	Sept. 13	10.0	47.6
Selma, Ala	48.0	Feb. 17	0.5	Oct. 5	11.7	47.5

Heights of rivers referred to zeros of gages, 1900—Continued.

Stations.	Highest water.		Lowest water.		Mean stage.	Annual range.
	Stage.	Date.	Stage.	Date.		
Tombigbee River.	*Feet.*		*Feet.*		*Feet.*	*Feet.*
Columbus, Miss.	27.6	Apr. 19	−3.5	Oct. 6, 7	4.7	31.1
Demopolis, Ala.	68.7	Apr. 22	−0.9	Oct. 6, 7	19.9	69.6
Black Warrior River.						
Tuscaloosa, Ala.	65.0	Apr. 18	0.2	Oct. 4	15.0	64.8
Columbia River.						
Umatilla, Oreg.	20.0	May 15	−1.0	Aug. 29-31	7.7	21.0
The Dalles, Oreg.	32.2	May 19	0.5	Aug. 27-29	12.3	31.7

Heights of rivers referred to zeros of gages, 1900—Continued.

Stations.	Highest water.		Lowest water.		Mean stage.	Annual range.
	Stage.	Date.	Stage.	Date.		
Willamette River.	*Feet.*		*Feet.*		*Feet.*	*Feet.*
Albany, Oreg.	24.0	Jan. 15	0.6	Aug. 29, 30	4.5	23.4
Portland, Oreg.	17.8	May 20	2.1	Oct. 17	8.2	15.7
Sacramento River.						
Redbluff, Cal.	24.7	Jan. 3	−0.5	{July 27-Sept. 3.. / Sept. 18-Oct. 1..	3.0	25.2
Sacramento, Cal.	27.0	Jan. 9	7.6	Sept. 30-Oct. 4..	14.8	19.4

Chart I. Sea-Level Pressure and Temperature; Resultant Surface Winds, 1900.

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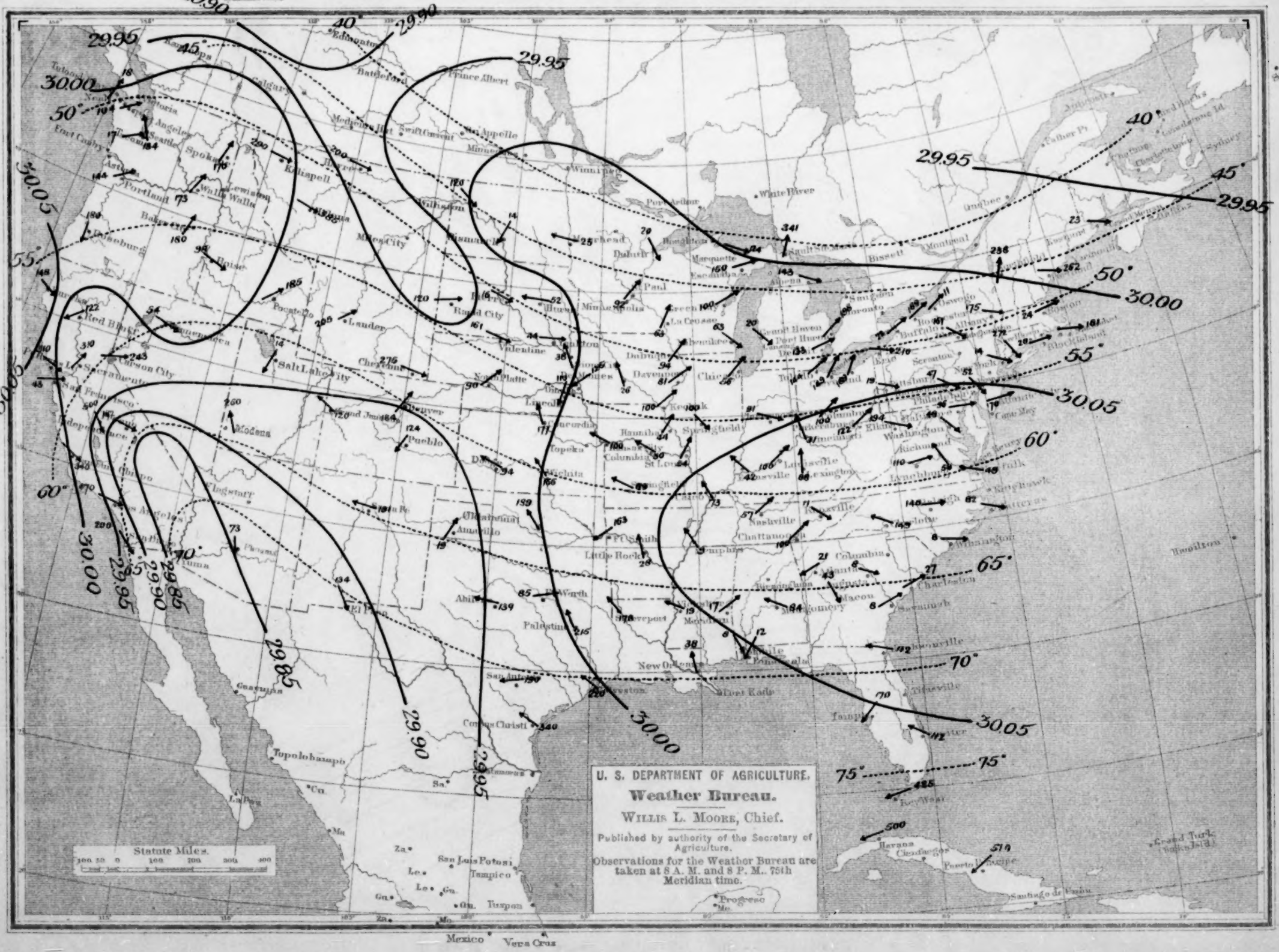

Chart II. High-Level Pressure (10,000 feet), 1900.

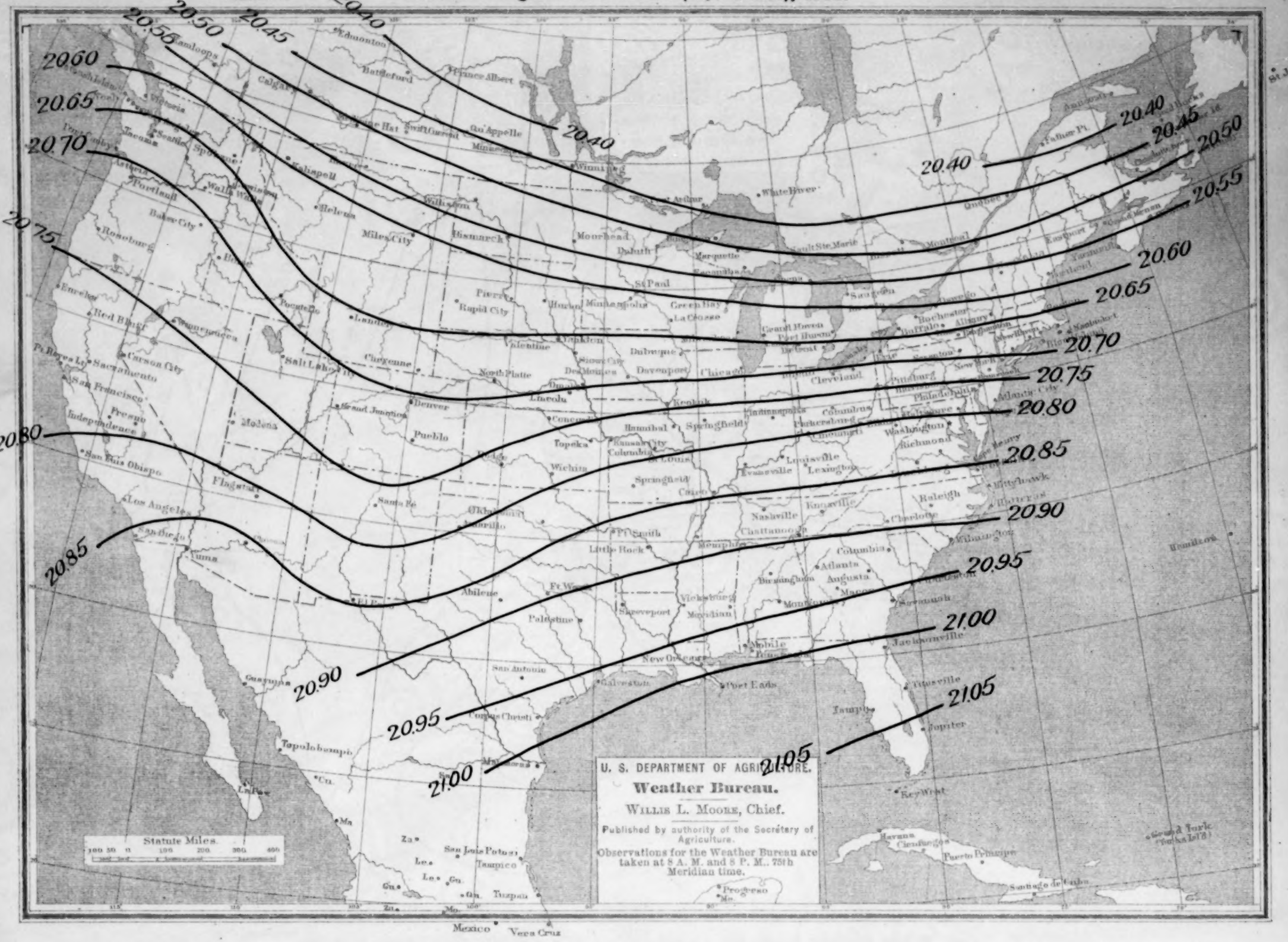

Chart III. Surface Temperatures.

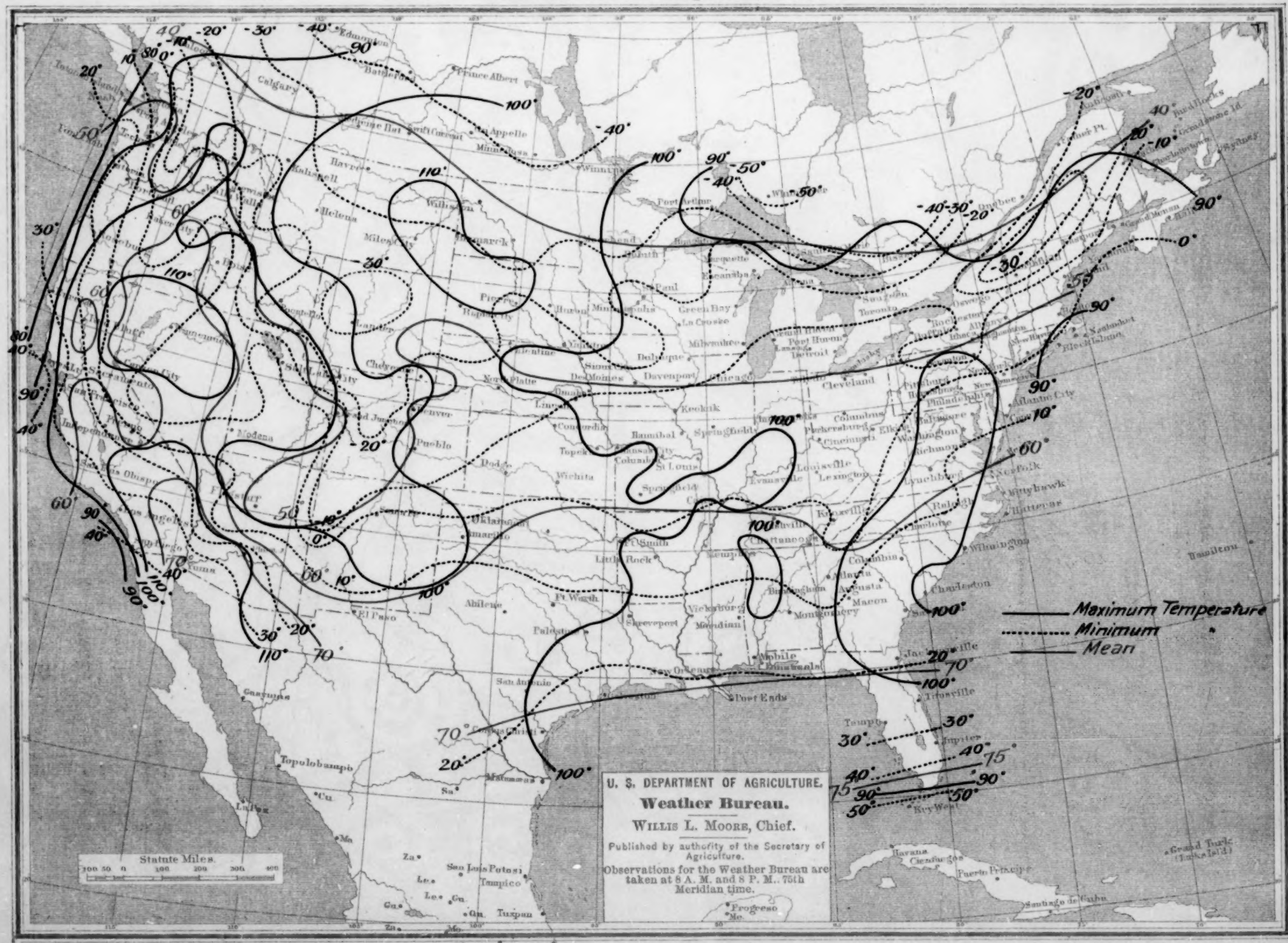

Chart IV. Total Annual Precipitation, 1900.

Barkerville

Chart V. Total Number of Thunderstorm Days, 1900.

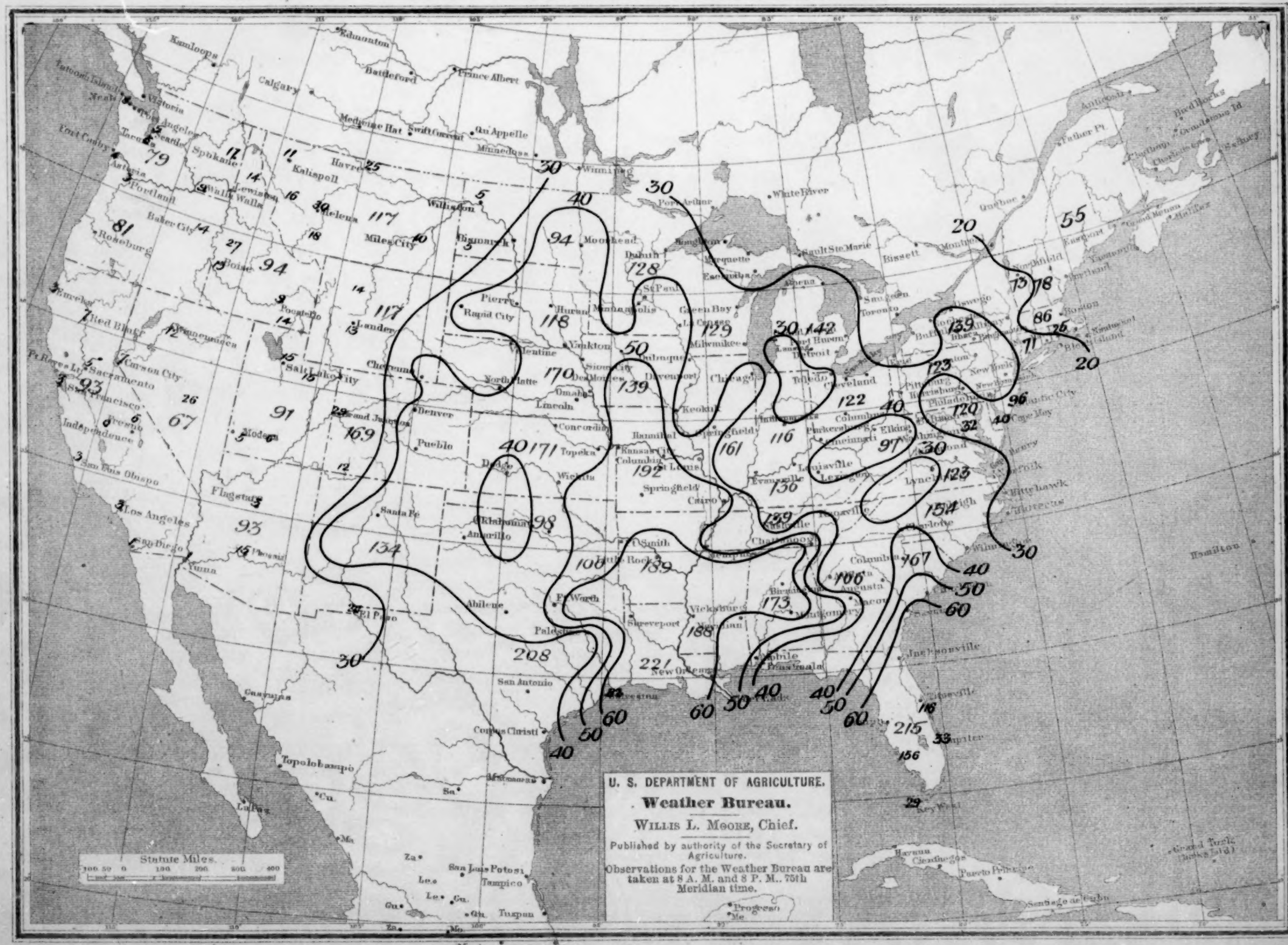

Chart VI. Percentage of Sunshine, 1900.

Chart VII. West Indian Isobars, Isotherms, and Resultant Winds, 1900.

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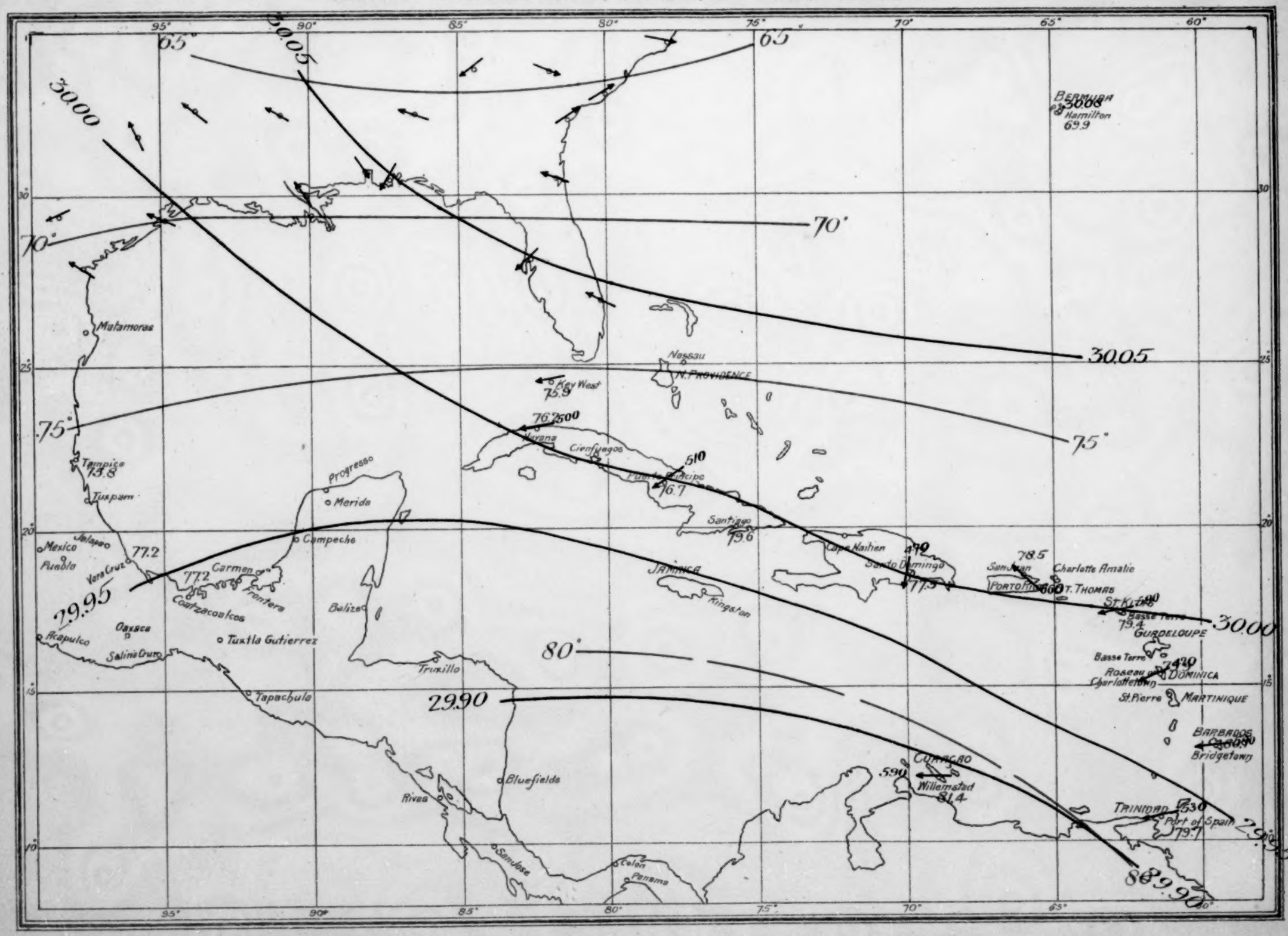

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ANNUAL SUMMARY FOR 1900.

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